

## **ROUNDTABLE DISCUSSION 3**

### **Government-Society Connection**

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**Irene Levy:** This third roundtable discussion of the e-government symposium organized by INAP is called “Government-society connection”. I appreciate the invitation to moderate this four-speaker roundtable discussion who will surely enlighten us.

Good afternoon to you all, I would also like to greet everyone who is watching us through streaming in the webpage of the INAP [www.inap.org.mx](http://www.inap.org.mx). It is sad that virtual means, I am not criticizing, make auditoriums look more and more empty. This does not mean less people are interested, it just means they are watching us at home or at work. Thank you very much.

I am Irene Levy, President of Observatel. I am a lawyer by the Escuela Libre de Derecho and columnist in the *Universal* newspaper; I am dedicated to the telecommunications issues, almost obsessively, I would say. I want to welcome our speakers.

They will appear in the order printed in your programs. The first one will be Mr. Javier Pérez Mazatán, communications and electronics engineer by the National Polytechnic Institute. His graduate studies were by Berkeley and Georgetown Universities. He managed the e-Mexico program and was Deputy General Director of the Digital Government Unit of the Public Function Ministry. He is currently a CRM IT consultant. Thank you Javier for being here with us.

**Javier Pérez Mazatán:** Thank you Irene, good afternoon to all. Thank you for inviting me, doctor José Castelazo, Jesús, Salvador, thank you so much. I am always glad to be here, here in the INAP. It is an honor to share this discussion with such major figures in the use of information technologies in the government and private sector. We have between ten and twelve minutes to make our presentations. I would like to be with each one of you one and a half or two hours, but ten minutes will have to do.

My concept is government-society connection, which is the main goal of Public Administration.

To have a connection we need at least two elements. In this case, the two will be the government –understood as the three levels of government– and society, who public employees work for and have to connect with. I will talk about, with your permission, and give my opinion on connection, through technological means and ICT, without these, it would be impossible to connect with society. Imagine doing it with 112 million people in Mexico or in China which has 300 million people; if it is not done through electronic means, how? Along time ago in hordes and communities, people connected face-to-face, this is long gone. Maybe this still exists in the jungle.

In general, especially for governments, connections using digital means are fundamental. I will talk briefly about this. My connections concept has many sides, summarized in four main factors: will, government and society's knowledge, access and participation. Let's talk about this, for those who are not bicycle aficionados like me, the character you see in the screen is Lance Armstrong who won the Tour de France seven times after overcoming a cancer problem. Wining the Tour de France one time is a feat, you spend three weeks, 6 times a week, pedaling 200 km every day. For me, winning the Tour de France makes you a hero and Lance Armstrong had the will to do it. His will had to overcome lots of things, personal issues, illnesses, training and the will to do it and achieve his goal.

In the government-society relationship, will is very important. The road will be long and winding. Someone who has worked over 30 years in the government tells you this. The path is hard; however, satisfactions are vast. Helping some gives great satisfaction. If you decide to do something that does not affect you or your family, but others, is very satisfying. This gives us the will to do things. Will can be classified into three kinds: professional ethics' will to do things, by our own desires. I am talking about public employees, who improve lives, their families and achieve goals

in life. We can find a lot of these. We also have people with the will to do it because they are part of a social or political group that drives them to achieve certain individual or group goals. There are those, I do not even want to talk about them, who do it for corruption. Nonetheless, will exists in these aspects.

Let's talk about the states of the Republic, for example, in those we find great disparities in the development and use of information technologies to create connections, which are not proportional to the resources they have.

Some time ago, the National e-Mexico system carried out a study of resource distribution in states and municipalities. We discovered not a lack of money, but an absence of will. A lot of times, because of certain circumstances, money was used to buy food and not computers. This is not always proportionate. We find states that have thrived even when considered to be poor; it is not a budget issue. For example, Colima is a very small and poor state; however it has made great advances in information technologies and government-society relationships, even issuing appropriate laws.

Durango is a state that had the last place in rankings done by Digital Politics. In these last few years, it has placed itself in the first places, in websites and influence society has on its government. It just takes will.

We also find there is a lack of public policies. I mentioned there are some states that have promoted them and have been successful; there are other states that have not. The federal government has made great efforts; however, the effort is so big it is difficult to achieve it.

Congruence between what the citizen expects and what public employees can deliver is not easy. I mentioned it when I spoke about the different goals a responsible person can have when offering these services as public employee.

In the previous discussion we saw some very interesting examples of the relationship when offering citizens' services. I think, and I saved this remark for this moment, they forgot to mention something important: their contribution to digital services, their contribution to open government, to the efforts made by the federal government to have an open government.

This was mentioned and there are some interesting examples, such as INEGI, information of professional licenses, birth certificates; all of them very important for open government. That is relationship, connection.

One has to be congruent between goals and what society expects. Government-citizen connections are important. One cannot do what one does not know how to do; unfortunately, I have seen on many occasions that the lack of knowledge has led to government program's failure.

On many occasions, we have money and will, but we do not structure plans correctly and do not use formal planning processes of design, development and implementation. A lot of times, I have been there, we are asked to do impossible things. One time I was asked to do a balanced scorecard for the entire federal government in three months, imagine that, three months. It is impossible to do these projects and sometimes political pressures prevent things from being done correctly. At this moment we find that we must balance, based on knowledge, planning and execution. There is a whole lot of strategic planning; most of it is really impressive, but little execution. We also have seen situations where execution is important and planning not so much.

In previous discussions we have seen some situations where efforts were done with resources, designers and developers of their own institution. These efforts can be seen as superhuman, because they are done with a very little budget. The execution is good because the results have been great. But what about long term planning? Did they analyze the impact? Is there a significant return on investment, which was little? Return would surely be greater if planning had been adequate.

Last but not least, social networks. Social networks have revolutionized government-citizen connections. Social networks have practically changed all of this connection process and we have seen many examples. I remember one because we were just talking about telecommunications with Irene. When it was decided to tax telecommunications, an avalanche of tweets and e-mails hit the government, deputies and senators; people asked them not to do it and sent 20 thousand arguments. Irene was the head of a lot of them. Unfortunately, it was not successful. However, we saw a wave that tried to prevent something or tried to change a government institution through an idea or goal, make it change into what society really wants and needs.

There is a digital gap between the people that have access to information and the one who do not; statistics say there are 35 million Internet users; approximately 29% of Mexican homes have some ways of Internet access. However, access is not everything. What is really inclusive is the adoption of technologies for the use and benefit of families, workplaces, PyMes, government and society in general.

Society's participation had already been discussed, I gave you an example of participation where e-mails were used to express this: no more telecommunications taxes; a precedent was created.

Social networks are important part and promote something much more important: collective and social intelligence. Social networks allow us to combine these intelligences, which does not mean one plus one equals two; one plus one could equal three or four, intelligence is not an arithmetic sum, it is an exponential one.

Let's dive into knowledge's economy. But first let's talk about information's economy; let's close that digital gap to make the most of economic issues, productivity, and everything related to technological development to promote the country's competitiveness. Finally, I will briefly speak about digital democracy. Information democratization means we all can have

access to it, not only to check our e-mails, but use it for e-voting and the change of government strategies.

Everyone heard that Iceland is amending its Political Constitution via social networks, we couldn't we do it in Mexico? Thank you very much.

**Irene Levy:** Thank you very much Javier. You have shared with us important information. I would like to speak of many of them; however, time is of the essence. I would like to point out one thing that Javier says that is very true: reducing the digital gap goes beyond giving people Internet access; it is giving them knowledge to use them, give them these educational instruments. It is not giving them a fiber optics cable or a few radio electric megahertz.

On the other hand, they prevented the Internet from being taxed with IEPS, although, other services were and service packaging made the situation even more complicated. The people that participated in social networks got tax-free Internet for all of us. Unfortunately, we have not achieved IEPS-free telecommunications services. However, all of us will keep on fighting. I would like to point out that we have over 150 Internet followers, this makes us very glad. Thank you Javier.

The following speaker is Deputy Rodrigo Pérez Alonso, who sent a virtual, very ad hoc video of his participation; however, we will not be able to see it because of time constraints. This video can be viewed in the INAP's webpage and it will be transcribed in this symposium's publication.

**Dip. Rodrigo Pérez Alonso:** I am going to talk about the work we have been doing in the Chamber of Deputies in the Special Commission and me to strengthen the access Mexicans have to interactive means and digital ones; to strengthen citizen participation and also strengthen goods and services provided by the government for this purpose.

I would first like to thank the National Institute for Public Administration for this invitation. E-government is an important subject in Congress and the Chamber of Deputies, we are very interested in it and this is why some months ago I and two other deputies presented an initiative to regulate e-government.

We have a very strict legal framework and the State's legality principle states that authorities can only act when they are authorized to do so; this e-government initiative creates competences for the federal government to regulate e-government.

The initiative focuses on faculties that Public Administration should have to reduce transaction costs, reduce certain procedures which can be obstacles for citizens and the possibility of doing them online.

Electronic means, telecommunications sectors and information technologies have a preponderant role in our economy and other economies in the world; this is why it is important to digitalize these services used by the government to provide goods and services.

The initiative was presented, if my memory does not fail, last year's April, it includes innovative concepts based on the Chilean model and other Latin-American countries; it also takes into account international treaties signed by our country such as the Ibero-American Charter on E-government adopted by the ninth Ibero-American Conference of Ministers for Public Administration in Santiago, Chile.

The issues addressed in this charter include bringing government and their administrations closer to citizens by making communication easier and developing a relationship with electronic means. I think this is important, as well as developing the democratizing potential of e-government. These are two important points of the Charter signed in 2007 by Latin-American governments; Mexico is still behind in terms of e-government, compared to its business partners.

There are two or more issues to be addressed. Firstly, the access to ICT in Mexico is not good; we can see it in the price of landlines, mobile phones, broadband Internet, etc. We are also talking about the contents, which are very important; an ecosystem that has to be complemented with access to these technologies, but also contents. Contents also include the ones generated by the government, by the State.

It is important to regulate e-government, which includes electronic procedures and services as well as interaction with citizens and creation of contents by the government and the systematization and regulation of Public Administration.

There are important concepts which have to be mentioned, such as interoperability, which means all of the systems of Public Administration can operate among themselves, be able to communicate and share information. This is very important in procedures and services.

I share simple example: if a citizen wants to get his passport he has to have his birth certificate, proof of address, official ID and all sorts of things. If the bodies which generated these documents shared information, a single document database could be created; this would make companies and citizen's lives a lot easier.

In terms of interoperability, it is important that each body in Public Administration is communicated; that is why we are taking up some characteristics already included in Public Administration: single database for procedures and services offered by Public Administration.

Besides the interoperability topic, we also have some clear concepts such as the national interoperability plan; this term describes the systematization of interoperability. We are taking up preexisting committees again, i.e. Intersecretarial Commission for Electronic Government Development of the Ministry of Public Function.

New terms are being included, like cloud computing, interoperability governance and of course a law. A general law which is abstract, impersonal and given the technological advances, a scalable law. That is, a law that does not limit Public Administration to one kind of technology, one way of providing services and one way of carrying out procedures. We need a scalable law; at this moment in time we have the social network issue.

Social networks are thriving and they are a very important topic to the media, government and citizen participation; it is important to know that in five or ten years social networks could evolve into a much more advanced service and therefore could not be included in laws. We would have an escalation problem of services offered by electronic means such as the Internet.

This law initiative is innovative because throughout two or three legislatures there has not been a single integral e-government initiative; we are achieving this thanks to participation and participation of experts on this topic. We asked specialized lawyers and presented this initiative alongside two other deputies.

Work in Congress has to be constant, uninterrupted and productive. We can state that the initiative presented by me and other two deputies is an innovative one, a cutting edge topic. We hope the Public Function and Budget Committees give out their ruling in the time left on the legislature. If it is not approved in this legislature, a precedent will exist, a well-done initiative that includes citizen participation and access to digital means. I emphasize that this precedent is very important.

With this I end my presentation. Thank you very much.

**Irene Levy:** I would now like to yield the floor to Francisco Javier Cárdenas. Electronics engineer by the National Polytechnic Institute, has a master's degree in Public Administration by INAP. He was Head Informatics Directorate of the Ministry of Public Education, where he implemented the Enciclomedia Program. He is currently the Head of the Cardenas Consultancy Firm.

**Francisco Javier Cárdenas:** Thank you. I would like to thank the INAP for the invitation; it is an honor to be here, thank you all for coming. I will talk about a government-society connection issue I have been in contact with and which is relevant once again. An important contract is ending and the time has come to decide its continuity. Newspapers just published the continuity of tender.

I would like to review some history; this program was effectively used to achieve a connection with society. Enciclomedia is a subprogram within the 2001-2006 National Education Program. It is one of the goals of a specific particular goal; the idea was to introduce technology in classrooms, to decrease the digital gap which was then an even bigger problem. It was also a way to continue with some programs the SEP had been structuring to introduce technology in classrooms. One of Enciclomedia's problems is that it had the same name as its manager. In 2007 Enciclomedia's manager, created by Felipe Bracho in 2003, received an award for its design and its scope in the field of education and its relationship with information technology.

Enciclomedia's main contents are still the fifth and sixth grade textbooks. This was a great advantage because previous programs wanted to introduce technology in classrooms and were only Band-Aids. Schools did have computers. However, programs like the Únete school network, which are still doing things like this, have contents that are not associated to curriculum. Teachers and schools have to invent spaces to take students to computing class.

Enciclomedia had nothing to do with computing classes. It wanted to take fifth and sixth year textbooks to the classrooms, in a dynamic way, associated with audiovisual contents that teachers were already familiar with. It was designed like this to avoid having problems when training teachers to use this technology. Once teachers got the hang of using the computer and projector they had in their classrooms, it was easy for them because the rest of the material was the one they worked with every day, as well as the additional contents of the program.

The 2.0 version also included English as a subject; thus, specialized teachers were not needed, which was a certified process. The model is something I think everyone is familiar with. It was installed in 147 thousand classrooms and included a computer for the teacher, a projector, a printer and an electronic board to be used with the projector. Its advantage was a working participative method. The idea was to make technology available for students, not teachers.

When Enciclomedia was launched, it worked with a TV. The problem was that teachers were the only ones that handled the computer and technology, not the students. Nonetheless, the interactive board changed this, by using technology kids had the additional concept of the way to handle contents and they could also play the leading role in class.

A lot was said of Enciclomedia. Did it help or not? We will see some results later. However, it is still impressive to see kids who did not participate, normally the teacher asked: who wants to go to the board? And no one wanted to. With Enciclomedia, the point was everyone wanted to go to the board and touch it. The rest are simple accessories. One of the things that Enciclomedia had was not planned; nonetheless, it had it: spectrum of connectivity. It was placed there to monitor the process. Enciclomedia was born as an administered services model, which was chaotic; first, equipment was bought, disastrous, then this model was changed into one of its services. The Ministry of Public Education only paid for the service it received. To monitor this service, a connectivity plan was implanted. I am speaking of times when technology was not like today, it was not cheap and connectivity was not either. Originally, it had a model which took advantage of satellite phones' auxiliary bands; a signal was sent and they knew if the system was on or off and at what times it was turned off.

Finally, because of the competition that had the economy of scale that went into this system, communications failed. Approximately 40 thousand digital antennas were installed, they did not only use auxiliary band to send "on"/ "off" signals, they even had Internet access. This happened with Enciclomedia.

What were its achievements? Three million students took lessons in these classrooms, and continue to. Approximately 220 thousand teachers were trained and over one million 170 thousand devices were installed and over 260 thousand didactic packages related to the training of teachers were delivered, they were also delivered to principals and regional supervisors. As mentioned, 37 thousand elementary schools had a very effective connectivity.

What about user perception? This is where we find connection aspects. Originally, they were included as classroom technology plans within large projects; currently, it is the largest educational technology project in the world.

In the end, perception is a government-society connection plan. What is the perception citizens have of a program or public policy? If you take a look at their different models, it was an interactive software program. What was the opinion of the different direct users of this system? I mean principals, supervisors, teachers, students and parents. They saw it as a software program, a mere tool to make learning easier and a support instrument for teachers.

I am talking about the difference between digital contents in classrooms and textbooks. When we read a book, especially textbooks, we find generalities and things the kids of our country will never see. Many students have never seen the sea because they live in the mountains and this program allowed them to see it. Many students lived in arid places and had never had the opportunity to visit the jungle, this program allowed them to do it. These are the advantages of using technology in classrooms. It was a very successful concept. These are the studies done by the Ministry of Public Education and that have been uploaded in its website, they have more information than the one seen on this screen.

What is the pedagogical impact? According to statistics, it has a very good acceptance level, contrary to what was feared. Enciclomedia had some problems. It was not designed to evaluate. It lacked evaluation schemes; however, it has a strong participation

one and teachers used it. We have not seen the students' opinion: "would you like your teachers to use the equipment? yes or no". The answer was: "Yes, we like Enciclomedia lessons and we want our teachers to keep using it".

How did the schools use them? Most of them used it on a daily basis; a few of them did not use it so frequently. This was due to some monitoring done, although it was not done later, to effectively bring teachers closer to the program. There was also a change in textbooks and the Ministry of Public Education did not update this material.

It also has several areas of opportunity, which were mentioned at that time, such as the training of teachers and let the population know if the program was to continue or not through "Digital abilities" and also assertively communicate the program's benefits in government-society connection.

I have some slides which you can access. They describe the new "Digital Abilities" program, which they are working on. I have nothing left to say; I wish the best of luck to the Ministry of Public Education not to let this programs disappear.

**Irene Levy:** Without doubt, "Enciclomedia" and "Digital Abilities" have been very polemic programs. If I was part of this discussion, I would analyze these concepts. I have got to say I have my doubts regarding the effectiveness of these programs, especially related to the way they have been implemented and the existing disarticulation among different actors, transversal public policies which should be multisectorial, etc. It would be very interesting to analyze the cost-benefit issue; that is, how much it has cost and benefits it has given us.

I would like to thank Mr. Cárdenas. I would like to say hello to doctor Luis García Cárdenas, member of the Honor Council of the INAP. Welcome. Without further ado I would like to welcome Mr. Manuel Tamez.

Manuel is an expert in economics, intellectual property, privacy and personal data protection, content regulation, freedom of expression, transparency and access to information. He is the head of Google's Governmental Issues and Public Policies for Mexico and Central America and he is currently the President of the Mexican Internet Association. Welcome Manuel.

**Manuel Tamez:** Thank you Irene, I thank the INAP for the invitation. I think all of the discussions we have had on this forum have been very interesting, a lot of them have focused on how the government can give the public information, how to provide services for the public.

I would like to focus on another character: the public, which can also offer the government some things and how the latter can use technology to learn from them, obtain knowledge and information from society. I think it would be important to recognize that the 110 or 115 million people out there, especially the 40-something million which are connected have vast knowledge, experience and information; greater than any database we have and more valuable to govern.

I will talk about how we can access that information; how we can interpret it and use it. Better information means better government. Citizens have the knowledge; we only have to ask for it. Before going into details, I would like to show you some slides which talk about Internet metrics to know the state of things in the world, especially in Mexico.

Fifteen years ago, the Internet had 16 million users; currently, there are 2 million 267 thousand users all over the world; 120 thousand blogs are created every day, not blog messages, new blogs that belong to people and organizations that have decided to start writing. Ten years ago, most of us, still researched in libraries, directories and newspapers. Today 2 thousand queries are conducted on the Internet, without counting the amount of information the individual can access via cell phone, smart phone, around the world. Lots of people can access much of

the knowledge that has been generated in the entire history of mankind. It is not farfetched to say any individual can access instantaneously much of the knowledge that has been generated in the entire history of mankind; in the next five to ten years, any person will be able to access any piece of knowledge that has been generated, ever. Without a doubt, this will change the world in ways we cannot imagine. In communication terms, no matter how we communicate, fax, landlines, 210 billion e-mails are being sent every day, not counting Spam messages.

60 hours of video are being uploaded into YouTube per minute. This is, an hour of video every second. 4 billion videos are being watched on YouTube every day, the latter and all of the different online video platforms, AppleTV, Netflix, etc., are revolutionizing the way we access entertainment and knowledge.

Up until now, the e-commerce market all over the world is worth over 500 billion dollars. Mexico is still behind, only 3 thousand 600 million dollars last year; however, this speaks of an important trend. Where are businesses going to develop all over the world? Where are jobs going to be created? Where are there entrepreneurship opportunities? Where is the economic activity headed?

Facebook has over 800 million active users. YouTube has over 800 million users each month. These are pretty big numbers, what is Mexico's situation? Some estimate that there are 46 million Internet users in Mexico this year, an 11% increase over 2011. The average Mexican spends more or less 4.2 hours online, twice the time they devote to FTA TV. I am obviously talking about connected people, the number of people watching TV is greater; more than double. However, 46 million people connected 4.2 hours a day is a very impressive number. The average Mexican internaut watches 10 and a half hours of video a month, 12% of Google's queries in Mexico come from mobile phones and it is estimated that –maybe Irene has more accurate numbers than me– in 2013 there will be 110 million mobile phones. Currently, 23% of mobile phones have 3G access and in 2025 this will change into

60%. The most connected section of the population is 35 to 40-year adults, not teenagers. Young adults are pretty connected and as I was saying, e-commerce sales in Mexico raked in 3 thousand 600 million dollars. Last year it only produced 2 thousand million dollars; thus, it is increasing quickly and spectacularly.

What can the government do? As I was saying I think we should reconsider how we access citizens' knowledge. Citizens have always had knowledge, which is not news to anyone. However, we now have tools so the federal, state and municipal governments can access this knowledge, read it and interpret it.

Every criminal in this country lives next to someone. Every pothole is seen by someone. Every corruption act is suffered by someone. The thing is: how do we get people to share this knowledge? Which are the challenges we face? I want to say there have been many attempts. Google shows us people are getting closer to us, to use our tools, to propose new projects. One important thing is, if you create a platform so that citizens can report things, such as potholes, the platform has to be useful, encourage action and offer feedback.

When you launch something, people gets involved, gets excited, reads it in the paper and says: ok, I am going to do it. They report the existence of potholes in their block; they access the platform for two hours. If a day or two pass and they realize no one has read the report and that no one is interested, makes people become disheartened. First of all, it has to be a useful tool, people can really get involved and make reports; the tool has to be easy to use. Secondly, it has to encourage action, after a few days workers have to be sent to repair those potholes and thirdly, it has to offer feedback: we received your report, thank you very much; someone will be there on Tuesday between 10 and 5 to fix it. The citizen has to be kept informed.

It is difficult to obtain useful data and process it. If we just tell people: send an e-mail telling us where the potholes are. The only thing that is going to happen is that you will receive half a million

e-mails, some of them reporting the same pothole; they have to be processed, think of how many people do you need to process half a million e-mails. The point is giving people useful tools so that public bodies can obtain data in a legible and accessible way.

I will give an example that has nothing to do with government. We have Google.org, from the Google Foundation, which has a product called FluTrends or influenza trends. This product was launched after we realized the latest influenza epidemics around the world had popped 15 days later after our data had predicted its potential appearance in a state or country. How does this work? When people get sick, they visit Google and search for topics such as fever, headache or other symptoms. We then observed search peaks regarding symptoms of some diseases. Today, Flu Trends also detects trends related to dengue and other diseases; the search engine analyzes data from people in a certain geographical location and identifies a trend.

A period of time from July 2010 to June 2011, from the State of Oaxaca, (this can be seen in the screen in orange), was analyzed, results showed a great number of queries related to influenza symptoms. When we started to compare this data with the real data provided by health authorities, we realized that we could have predicted the appearance of an influenza epidemic in Oaxaca, 15 days before it happened, even before health authorities knew about it. We started working with different health authorities from several countries to provide this information; they used it to know where to send doctors and medicines, because they had been working in delayed fashion. They usually found out 15 days later, the doctors and medicines got there 15 days later and when the epidemic started to wane they also found out 15 days later. This kind of data analysis would allow a faster governmental response.

Imagine if governments were capable of seizing these opportunities –we already have the technology– to analyze real-time information given to them regarding housing, health, economic activity, employment, movement of persons or public

transportation; they could really be more efficient in all three levels.

Maybe most of you are familiar with the “Ask the President” project, an exercise we did with Google last September, under the Fifth Government Report; President Calderón invited the public to send him their questions. The president received in five days, 14 thousand questions from 12 thousand people using the Google moderator. This allowed people not only to send questions, but also to vote for everyone else’s questions. “I like this and not that”. The tool adds up votes and orders them from the most popular to the least popular. 12 thousand 200 people cast 211 thousand votes to order the questions. This allowed the President to talk for an hour, answer the 21 most popular questions elected by the public. Everything was harder before, no one could tell the public: “send me your questions” and pick the most popular ones, nowadays, the existing tools allow us to do this and make a president participate; in this case President Calderón. This exercise was also carried out by President Obama and other six or seven heads of State.

I will talk about some examples. These sites are not Google-powered. England has a site called mysociety.org, where people can log in and report stuff, like potholes for example. They give you tools to report problems, we can see there were 1500 reports last week; I took this picture yesterday. 2600 reports listed in the database were addressed last month and have 189 thousand reports of advance.

These tools are sometimes promoted by civil society. I want to give this example to show you not everything has to be government build. Sometimes civil societies can help the government adopt new tools and new ways to carry out tasks and work hand in hand. Civil societies provide tools and technology. Government provides the will to connect to these tools. It starts to create a very positive synergy with citizens and the government starts realizing how many problems the country has in regard to, for example, how many streetlamps do not work in public lighting,

how many potholes there are, etc. This way the government takes information from citizens' knowledge.

Another quick tool is Ushahidi. I recommend you take a look at it; it is an open, free tool to be used by the public. I am not going to talk about this, but Ushahidi provides free tools that anyone can use. Suit free bet allows us to read moods in social networks. Thousands post their opinions on Twitter, but people want to know what their frame of mind is. Suit free bet provides free tools to do this.

I would finally like to talk about education. Nowadays, technology gives us the opportunity to have high quality full coverage. Universities like Yale, Stanford or civil societies like Canacademy are video recording their classes and uploading them so everyone can access them.

Imagine if Mexico did this. There are some projects, i.e. video recording the best high school teachers and uploading the entire curriculum to make it accessible to all Mexicans, however wants to watch it. It could be used for open high school accreditation or traditional high school education to review some subjects.

Imagine if we video recorded every class in every public university and made it accessible to the public. Mexico has some of these projects. They would be worth looking at.

**Irene Levy:** It is interesting how different actors interact on so many levels; we would have to ask ourselves this and how to interact.

Manuel puts the government in the eye of the storm, industries too; platforms created by industries and civil societies. I would also add the academy, how academic have and are contributing to government-society connection.

In this context, an important aspect is education. Returning to what we were talking about earlier, let's think of an online

master's program, do not be fooled, the online master's program of the INAP is more complicated than the presential one; I know this because I am studying it. We are thankful for it, many of us could not study it in situ, it allows us to be part of it and be enriched by this information and formation.

I yield the floor to our last speaker, Carlos Viniegra Beltrán. Bachelor of Economics by the Autonomous Metropolitan University and has a master's degree in Business Administration by the IPADE.

He has been head of several technology and informatics departments in the federal government. He is currently the head of the E-government Unit in the Public Function Ministry. Thank you Carlos.

**Carlos Viniegra Beltrán:** Thank you very much. We will take Manuel's presentation into account. I want to say something. There are two kinds of people who think about technology. A lot of people think that technology creates value, they say: the system is what matters. People more interested in humanistic issues say: no, technology does not matter; what matters is the value generated by people.

In this sense, the most sophisticated technology is like a hammer, it only improves human productivity. I think Manuel has illustrated this dilemma and the government has always had problems to connect with society.

For example, ever since the romans, some governments have thought government acts mean tangible things, monuments, places and things that celebrate their heroic feats. Others say: government actions are not necessarily tangible, they have to be felt.

For those who have travelled abroad, when they are in a different country, they see the airport, streets and cars and they do not feel the same. In countries with good governance, we can see how things work and we are not seeing the government, police officers,

offices everywhere, you are not carrying out a procedure; there is just good government.

One of the characteristics of good government is you cannot feel government. IT has reached a point where it can build digital palaces and monuments; that is, webpages to understand demands.

My presentation focuses on this. In the last couple of years we have tried to build the first platforms focused on Mexico's demands. I just want to tell you that every government in the world has this problem. 99% of posted information is not structures. The other 1% of the information has to do with transactional, procedural and service information. I receive something and offer an output. "Ok, you are authorized to do this".

Currently, we talk a lot about things related to visualization and environments enriched by this percentage of information, which allows people to make small decisions or understand something that is very complicated. This structure will remain the same; it is almost a physical rule of information. It is difficult to achieve structured information. It is difficult to have enriched information, especially in infographic issues. People in the journalistic media know that making infographics costs a lot of work. You start with a bunch of unstructured information, give it structure, create a graph, insert art, a little of the secret recipe and if your infographic is really good, it will allow you to express a very complex idea in a very simple way. This is the world of information and it is very cheap on unstructured information and very expensive on enriched information.

We ask ourselves, how can we better interact with citizens? To answer this, taking into account the previous relationship of unstructured information, procedures, services and enriched information, design a three-stage model and publish the last one.

Firstly, it is amazing how much time governments spend trying to understand search engines. You log into websites of some

countries, even developed ones, search and get nothing; no results, even when you typed in the president's name. We did this by typing the name of a person that works in a State Ministry. We typed in the name of the minister and the search engine had nothing. "No results found", was the answer.

We tried to understand what the citizen wants and what the government offers regarding unstructured information. That is Phase I, a search engine.

It is worth mentioning search engines were launched in 2000 and the government in Mexico started to use them regularly until 2011. Governments do not know how to use technologies that have been there for more than a decade. Phase II is related to a procedure and service platform and the third one to enriched information: "Your government in maps".

Phase I, is a service focused on demand. We are indexing every day 400 million registries if federal, state and municipal government webpages. We are delivering focused on demands, allowing us to establish a continuous improvement process for every webpage that participates.

This is the simplified point of 99% of government information. What is the idea? It is already a famous idea. Manuel talked about some interesting results; we have to create a very good search engine. We seem to think we are marginally better than our competitors, because we are solely focused on the government. That is, we use the most cutting edge technology in the market, so we can close it and say: here you are only going to find official information; we are improving results for citizens.

This is allowing us to provide citizens things like the ones you can see on the screen. Thus, we can give citizens an answer according to their search criteria regarding a specific program, instead of getting lost looking for scholarships, we give them scholarships, jobs, etc.

The interesting thing is the citizen does not have to log into [www.gob.mx](http://www.gob.mx) to access the platform, we have dissolved the platform into search boxes in every government webpage, 190 government sites.

What does this allow us to have? Up until today we know what citizens want regarding the federal government. This has grown. We freaked when we saw the graph, we were used to having two, three or ten thousand citizens search our system. When we started to include other institutions, on our first day we had one hundred thousand searches, and then we had these peaks you can see in the graphs, 500 thousand daily searches.

It is one of the most used services in the country. There are some days we process half a million searches, normally we process 200 thousand, it processes one of every ten thousand searches worldwide. This allows us to have the analysis we see on the right side of the screen, to understand better how we answer peoples' needs.

We are finding things we did not expect, things that can even be counterintuitive. For example, in SAGARPA we found out that the main search has to with work. People are accessing this institution's webpage to look for jobs. We would have thought it would be to ask for support for the countryside; however, they look for jobs.

Why do citizens do this? We would have to understand this better; however, we can redesign webpages based on what citizens are looking for. It has also allowed us to change the dialog with other non-government organizations that tell us: "this is what citizens want". We look at the search criteria we have on this subject and say: "your topic is not important for citizens, it a completely marginal subject". "No, I am convinced there are more people". Up until now, we think there are other issues that are more relevant. We have a database, which we are exploiting, it has 27 million registries and we hope to have between 50 and one hundred million searches.

Phase II is a unified attention point at this time. With the technology we have, it is difficult for us to think that every time we design a system we are making a module to enlist, identify and store personal data from our citizens. We have thousands of systems in Public Administration, where we have several copies of the citizen's information.

We adopted a social network standard, this way we can solve two different types of clients' situation. On the one hand, institutions, which can upload gadgets in little apps, we solve the user authentication problems and the point of citizen's access via electronic signature.

Citizens get a personalized website where they can find the apps they want in a catalogue. We can create a gadget market, where citizens can search for and personalize a cyberspace place to access the things they look at every day.

How do we access this online platform? In gob.mx, you hit the access button and you will find a page to register, using SAT's electronic signature you can create your own profile and access apps like the one you are looking at.

We currently have 19 gadgets, and two waiting to be implemented; however, we want to build a list of 100 gadgets before this administration ends. We want this page to improve using what is already implemented in Public Administration. I must tell you something important, each box you see on the screen is a different system controlled by a different public institution. This is called a federated system. We are not building a data megacenter where all apps lie, but a distributed system where that search, I think they showed you the SEP one, is executed through different servers, with links to SEP and the citizen receives the final results.

This makes the app ecosystem more resilient and allows us to make the most of investments made in the past to offer services to citizens.

Phase III of the citizen webpage, which we are about to launch is: “Your government in maps”. The url to access it will be [mapas.gob.mx](http://mapas.gob.mx). It has not been launched because we are in the process of presenting it to the media and society. It is the first open data webpage in Mexico, we decided to include data and a platform to visualize government information, as well as mechanisms to create their own government experience. This is related to our adhesion, last year, to the Open Government Alliance, one of the actions within Mexico’s Action Plan.

What does it do? In the platform, institutions gain access to a loading module, where the public geostatistic information generated by the government is introduced, cataloged according to a taxonomy we created and from the platform, where a lot of institutions participate; the information of the national territory is contextualized.

Most of the information is related to geostatistic layers. We can upload a layer, for example public works in process, and they attach videos, audios, photos, documents, bidding processes to each layer, whatever we want. We are generating this enriched experience so citizens can access any public information topic in Public Administration.

This will allow citizens to see at the same time information from different institutions. You no longer have to collect public security, Ministry of Public Education and SEDESOL information; this citizen will probably bring together these three variables of collective knowledge or three kinds of different information and obtain a useful conclusion for his business or decision where to live, etc.

Currently, we have this layer inventory. These layers are associated with photo archives, for example, uploaded by institutions; we hope to present this platform very shortly, on May 26<sup>th</sup> or 28<sup>th</sup>.

We trust this platform to be a before and after of e-government, we do not know of any government that has taken this approach to open data.

Regarding citizen-government connections, we can conclude that governments have not adequately changed information models based on supply. In other words, bureaucracy has to rethink what citizens are going to use to change these new approaches based on supply, i.e. search engines, I took us to long to understand their power.

In these new models, social and cloud computing ones, we have discovered that creating gadgets or layers is no longer a technological challenge, but a creative one; what Public Administration needs is creative professionals.

The truth is it is actually funny when we tell them: you do not have to solve any database, system or firewall configuration. We need you process the information you receive, enrich and creatively present it to citizens. When we mention the word creative to public employees, we toss them into an unknown world. The challenge is that institutions such as INAP, especially their public employees should say: it is not about the way I will control information, if I stamp it, sign it, authorize it, even in virtual environment; but how am I going to understand the needs of the citizens, how am I going to use my technical capacities to enrich the information, experience and knowledge I will provide them; I must do something new, innovative and creative. This is the challenge faced by public employees this century.

Lastly, I would like to say that Mexico has started to yield results related to the idea of open government, the adoption of cloud computing and social networks. Recently, the e-government services of the UN was published, it has three components: online services, telecommunications infrastructure and human capital. The component that is used more in the Public Function Ministry is online services. Mexico improved its position from position 39 to position 28; 2010 to date.

Although we still have the digital gap challenge and innovation and creativity of human capital.

**Irene Levy:** Thank you very much. We do not have much time and I would like to get to the questions. I would like to comment that it would have been very desirable; I am saying it because of the Public Function Ministry, to monitor this focused transparency figure that came from the corruption programs some years ago which just stayed there, frustrated.

I would also like to point out some elements which were absent from the roundtable discussion, I am talking about transparency and accountability. How can the government connect with the citizens if they do not have those two factors?

Lastly, the lack of an articulating element, the digital agenda, which we do not have in Mexico, although there have been some efforts to fix this. I would like to hear some questions.

**Luis García Cárdenas:** Each time this institution generates an effort to promote e-government and everything digital; I get a little scared, I say it as former president of the Institute. Let me tell you why, I have talked to some other people, Manuel and almost everyone sitting in this table, they will not let me lie. Every time I listen to the brainy elements, numbers, trends, public advances, the way we have splendidly connected with Google, with Public Function is mandatory. What I want to say is very simple. I think there is, besides the digital gap, a democratization gap in Mexico's e-government capacity. Someone said there were twice as much TVs than in the 40s. I am worried, not pressured, I have been a political entity all my life, I insist, I worry we are going to generate a situation of rejection, a division of classes among people with access to Internet and electronic elements and those who do not.

I want to mention this, most citizens do not know what the Internet is, and most do not have equipment or access to them. We are talking about, a long time ago we old people used to say it, first and second class citizens. We are now talking about those who have Internet and are computerized and digitalized and those who do not even know it exists; a lot of people.

I politically worry about my country. I was very old when I was introduced to cybernetics and I am a fan now; I realize their usefulness and I have the means to access them. However, we are creating neglected social layers; we are creating a dangerous political marginalization. One day those who do not have it will say: hey, why not me?

In the same way we access corn and freedom of expression, we have to achieve the democratization of access to new technologies. Devices are still very expensive, sophisticated despite efforts to make them simple. A large part of the Mexican population does not even know this sophisticated way to get closer to knowledge exists. I just wanted to say this. In the end, you are not going to solve this, nor is the INAP. I would also like to add there is always a shadow over us, George Orwell's one, we are still the image of the brother. Thank you.

**Jesús Suárez Zendejas:** Mr. Carlos, spectacular achievement [www.gob.mx](http://www.gob.mx). This morning the Court's head of IT was here and also presented some information regarding the legal knowledge website of the Mexican Association of Justice Administrators. Shouldn't the two powers, Executive in APF and Federal Judicial and state judicial, reach an agreement? Of course they are totally different intentions, the [puntogob.mx](http://puntogob.mx) and the ones of the legal knowledge website. Shouldn't they exchange information and experiences?

This morning I was listening to the Court's representative. Now I am listening to you. You have a similar vision, similar instruments, and each one has made efforts. Personally, I would like to congratulate you. In my lectures, I always use the [www.gob.mx](http://www.gob.mx) example because there have been considerable advances.

The question is, have you approached the Court? Have you had any contact to exchange information between the [puntogob.mx](http://puntogob.mx) and the legal knowledge website?

I have a question for Mr. Cárdenas. Did Enciclomedia work? Yes or no. Now that “Digital abilities for all” is at an end, why is Enciclomedia been given continuity? A program which had apparently come to a standstill.

**Irene Levy:** Thank you Mr. Suárez, I would like to hear two more questions and then listen to all the answers.

**Vanessa Rodríguez, Technical Secretary of ICADEP:** Thank you very much. Good afternoon, I would like to congratulate you all, especially Mr. Salvador for organizing this great event. My question is for Mr. Manuel Tamez, what are the challenges of online education? We already have platforms, we already have that interaction. What is the next step for those of us who have the means to disseminate knowledge through technological instruments?

**Question:** I would like to congratulate you for this important gathering, every time we return to our house, INAP, we update our knowledge. My question is for Mr. Cárdenas, who has been strongly criticized because of Enciclomedia. This is a tool to even inequalities, although it is not free from Mexico’s traditional racism which we have never eliminated. What would you do to improve and update Enciclomedia, which places those who do not have equality with those who do?

**Question:** Technological knowledge or technological means; who are they for? Which identities, students, teachers? There is a film documentary that asserts students pass by the skin of their teeth. Another question: teachers and students think six should be the minimum grade to pass, and some teachers do not want to get tested because they fear losing their jobs. Knowledge and technological means, who are they really for? Any speaker can answer.

**Question:** doctor Luis García Cárdenas, I will describe a situation. Chiapas, a little town called Cabeza de Toro, a barefoot, poor seven or eight year old girl tells me: take me to your home and give me a job, I will help you with your household chores.

I ask her what she wants money for. She says: I want to save money because every afternoon I go to a café Internet. So, the girl goes into the store and uses the Internet. I do not know if she is Pandora or hope hidden in Pandora's Box.

I also would like to mention that I do believe in Enciclomedia because it is technology. Mr. Cardenas, the world is full of contrasts, the program is now called HDT, have you thought about the infrastructure you need?

I would like to tell the person who asked the question previously something. I do not know if the person who wrote "Panzazo" really knows what public education is and what being in a classroom full of elementary or middle school kids is. I would also like to know if he knows how to handle a room full of adolescents or kids.

**Irene Levy:** Thank you. Our speaks will now answer these questions.

**Francisco Javier Cárdenas:** I will try and summarize some of the answers. Does Enciclomedia work? There are different studies that have studied the relationship between the use of technology, Enciclomedia, and academic results.

You can find this data in the Public Function Ministry webpage. These have been there for three or four years. This data states: children that have had contact with technological elements have had better academic performance that those kids who have not had frequent contacts or whose teachers did not use them properly.

It does work. That is why I finished my presentation and said: I hope the Ministry of Education successfully gives continuity to these programs, taking into account all of the previous experiences and six years' worth of experiences should be considered to improve them.

The same thing happens with HDT, which intended to take into account those experiences and improve the programs. It already

had specific elements to improve and it also had a very important concept: connectivity, even broadband, etc.

If this has been possible or not, it is another matter. I think the problem with HDT has been the launching part. Dispersing it all over the states has diminished its pedagogical impact. It has reached few places and it has also had little impact on economies of scale. It is not the same to deliver thousands than to buy little pieces. They also dispersed money by placing discretionary amounts in different places; without a strategy.

In some places, some classrooms were built and in other places only a few of them were built, this has to do with what we were talking about, how to even up this program. The program is born with this function, to promote equity, equipment, access, contents and the fact that kids from mountainous areas could have the type of education kids at a very good public school in any urban area have; this was the idea.

In some states, some efforts were made to prepare these classrooms; a lot of them did it effectively. Some classrooms were still under construction when the equipment arrived. And some places did not even attend that need; however, I think the road had been built and states know what they need to do: prepare classrooms, train teachers. The Ministry of Education has to extend these programs and monitor them; to cover elementary education from the fifth year to middle school.

**Manuel Tamez:** Doctor Vanessa asked, what are the challenges of online education? I will try to summarize. Nowadays, the world is experiencing a paradigm change, we are changing traditional education in which students go to classrooms and listen to a teacher give his lecture and then go to their homes and practice. The new paradigm changes everything. People can now watch the lecture on video from their homes and then go to the classroom and practice and discuss with the teacher. In this sense, we should define what education currently means in middle and graduate levels.

In this context there are three. One of them is knowledge in itself, another one is people and citizen formation and the third one is certification. I think people and citizen formation falls on schools; thus, it is more difficult to automate. However, access to knowledge, especially video access like the YouTube ones I showed you previously, has to be freed. Knowledge should be accessible, free.

We have to make the entire high school curriculum available, open, online and free of charge. We have to make sure the entire curriculum of every public university is available online. This does not mean certification, as I had previously said, it is a different thing. Maybe students can come to some institutions, like INAP or UNAM and access certification programs; however, access to knowledge has to exist, everyone will have a right to access.

I am not saying everything has to be free. If someone is an expert, for example an algebra expert, and wants to sell courses, \$200 for ten hours, he can do it. A way to solve this is creating education repositories, big markets where people can access, get education for free, or buy a course right then and there. Knowledge should be there for everyone. One of the biggest problems we face is the digital gap it will cause, work so everyone is connected, universal broadband connectivity, universal access to knowledge.

**Carlos Viniestra Beltrán:** I will try to answer all of the questions. The first topic I will address is the gap. Before, we only spoke about analphabetism. Now, analphabetism has more sides, functional analphabetism and now digital one. Given the advances and evolution of human culture, it is very important for society to have access to these new concepts, if not more gaps will appear.

There are interesting things such as the one presented in the Kant academy. Nowadays, it should be a severe problem, being a professor in middle and high school levels and you say something that is wrong, the lecture will be all over YouTube the next day; or in that instant a student can easily correct the teacher.

Doctors go through this a lot. Their worst enemies are search engines, people say: I have searched for my symptoms and the doctor says: you have to undergo surgery. The next day, the patient already has 10 thousand references and videos of how to perform the operation, the pros and cons too.

This does not necessarily mean better attention, however, the role of intermediaries is being questioned, i.e. professors, doctors, architects, etc. I was an Economics professor in the Panamerican school a couple of years ago; I was surprised to learn that students were connected, 100% digital, modern and with no intention to personally take lectures.

There are some studies that show that when new technology is introduced in impoverished environments, there is a negative effect. You get them a computer and Internet and they kids get hooked up on games, gambling, porn and other things. We have to stop thinking that if we introduce technology, the effect will be positive immediately.

A positive effect needs an enriched cultural environment. This is a great challenge in this country, parents work too much, kids access technology by themselves and their peers are their friends. We face a challenge, a cultural one.

Regarding connection with other powers, we are discussing the Digital Government Law, Deputy Pérez Alonso has presented a project, and he wants to gather a Council. It has a curious name: E-Government Supreme Council. Unfortunately, this country to be divided into powers, needs different areas. I hope a coordination mechanism can be created through this law. It is very important, but constitutionally each one decides what it wants. As an instrument of public policy we assert: “We can agree with the other powers”, we have come close; however, we would like to see more openness on the part of the other powers to make this agreement. I think an e-government’s most important job is done in local areas: it is the closest they’ll get to the citizens. These jobs include the existence of water, correct real property taxes; political and not technical problems; besides, municipal

presidents change constantly. One day a specific municipality is a star in Mexico; the administration changes and the e-government program disappears and it return to the bottom of the list. We need stability in these programs, in state and municipal areas, which are more administrative and related to the impossibility of reelection, etc.

I only have to talk about focused transparency and accountability. We have asked every institution to include their focused transparency topics in the platform. In fact, we had an example of this in one of our slides, if you put in the word focused transparency, you can find the source. We already established a legally valid definition of open data. For example, there are a lot of countries that already have open data and open government websites, as well as systems, but they do not have a public policy mandate. In Mexico, we already have this mandate based on interoperability and open data; we are now building platforms to stabilize this idea of focused transparency.

We had the Regional Open Government Forum, organized by the Transparency Unit. Almost every country in Latin America was there. I was surprised to hear in all of the workshops I attended, that other countries speak highly of Mexico in transparency and accountability topics, they say: “You practically invented the subject”. I was surprised, we always complain we do not have it; however, compared to other countries we are light years away.

I really like the accountability topic, especially the “Your government in maps” part. We are uploading time series to build thematic maps that move in time. We want this to be a powerful tool to show a great number of data in time visualization. For example, we have one related to the coverage of the 2006-2012 Seguro Popular. There, citizens can see the layer, its moves and it can be controlled to see in which period of time it was and the level of coverage it had. We hope these examples will multiply. We already have the platform; we now have to force institutions to provide more information, open data, interoperability, accountability and focused transparency.

**Irene Levy:** Thank you. It a shame this presidency has ended; but we will pay close attention.

**Javier Pérez Mazatán:** In my presentation I briefly mentioned the democratization of information or digital democratization; it is one of the greatest worries a country can have. Mexico has made great efforts via e-Mexico, via the institutions themselves, via the states and the results have not been what we expected. I have data from the INEGI, computer users per state. Sonora has the biggest number, 54.8% and Chiapas has the smallest number 25.7%. In relation to households with Internet connection, the Federal District has 47.3% and Guerrero has 19.7%.

Those are still small numbers compared to those of other countries; I think it is still an important problem. However, I also mentioned that closing or tightening the digital gap is the first step, which is entering the society of information; that is, we already have access to information and the opportunity to do it.

The truly inclusive thing is the digital one, how we take advantage of that information and if we only use it to send e-mails and tweets. I said IEPS was stopped thanks to e-mails and tweets; this information wave presented to authorities achieved something. E-mail by itself is very useful, it is truly inclusive if it used in apps like Enciclomedia, apps like search engines and others to promote development. I do not have time to speak about the connections that should exist, not only between government and citizens, but also internal connections the government should have with state governments. The connection different powers should have to give the citizens full service.

**Mtra. Irene Levy:** I thank you all. Please give the participants a round of applause.

**Salvador Ortiz:** Thank you very much Mrs. Levy for your moderation skills, comments and interpretation of our speakers' assertions.

I would like to should my appreciation for our speakers. Firstly, Irene Levy our moderator, Javier Pérez Mazatán our friend, engineer Francisco Javier Cárdenas, thank you very much, Manuel Tamez who did an excellent revision of the government-society relationship through electronic means and Carlos Viniegra Beltrán friend of the INAP and technology in public service enthusiast.