

E-gov in Algeria : Between Preparedness and Practice

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Key words : *E- Gov (Electronic governmen , ICT (Information and Communication Technology , Digital Economy, Informative Society, Development , Indicators of ICT and Informative Society Global Service, Preparedness and Practice, Virtual Organization, Broadband , I cloud, High Speed Internet Access ,E-trade , E-Business, E-Democracy, E-information, E-management.*

المخلص:

جاءت هذه الورقة البحثية للتعريف بالدراسة التي أتممتها بخصوص ما أعلنت عنه الحكومة الجزائرية بإيعاز من أعلى مستويات الدولة و بدراسة وزارة البريد و تكنولوجيا الإعلام و الإتصال التي حرصت في مجملها على توظيف و إطلاق مشروع إستراتيجية "الحكومة الالكترونية في الجزائر" حدود سنة 2013 و الذي تم الإعلان عن البدء

فيه منذ سنة 2009 ، و يندرج هذا المشروع ضمن مبادرات المشاريع التنموية الرامية أساسا لتحقيق التنمية المستدامة في مختلف جوانب الحياة، و أحاول كذلك من خلاله إبراز أهمية مدى تطبيق مفهوم الخدمة الإلكترونية الجديدة ، المتمثلة خاصة في ربط المواطن بالحكومة و أهميتها في تجسيد مجتمع المعلومات الرائد بدوره على ركيزة الإقتصاد الإلكتروني ، و لن يتسنى ذلك إلا باحلال نظام إلكتروني متطور شامل،يسمح بتعميم استعمال التكنولوجيات الحديثة من خلال ترقية نظام المعلوماتية الخدماتية في قطاعات الاتصالات و التربية والتعليم والبنوك والإدارة العمومية من خلال إتاحة أفضل وأبسط الخدمات على شبكة الإنترنت لفائدة المواطنين والشركات والإدارات، وبشكل تفاعلي ، الذي يندرج نهاية المطاف في إطار بروز مجتمع العلم والمعرفة الجزائري، الشيء الذي بات من ضروريات وأهداف التطور الفعلي و الحقيقي لما له من مآرب لا حدود لها على شاكلة توفير الوقت و الجهد و الكلفة، بعد البحث عن متطلبات إنشاء هذه الحكومة الإلكترونية ، كما تم التطرق أيضا إلى أهم دوافع الانتقال إلى الحكومة الإلكترونية، وإبراز معوقات تطبيقها.

▪ **Introduction**

the second half of the 1990s witnessed tremendous projects of e-government in lot of developed countries , that subsequently began in the Arab world by the beginning of the twenty-first century. This was in, the Emirate of Dubai, Jordan , Syria and Egypt, pending the rest of the Arab countries were convinced by the gains to adopt this idea, so they have moved forward to implement and reflect this project regarding the benefits that come back by its achievement at both level of government Or client, so that the Ministry of Post and Information and Communication Technologies has launched through the e-Algeria project 2008-2013, which was consulted with the major institutions - public administrations, general and private economic agents, universities, research centers and professional associations active in the field of science and information and communication technologies. More than 300 people participated in the brainstorming and discussion in 16 months. (1)

A number of key objectives of this project have been identified:

- A. Ensure effective provision of government services to citizens and be made available to all by facilitating and simplifying the administrative stages through which they seek to obtain documents and information.
- B. Coordination between different ministries and official bodies.
- C. Fighting bureaucracy, which is a brake on the development of the country.
- D. Improving the quality of services provided to citizens in various areas of our society, and contributing to the realization of the principles of social justice and

equality on the ground, as well as to achieve national dialogue policy by bringing the administration closer to the citizen.

- E. Protect our society and country against the scourge of organized and trans-border crime as well as the phenomenon of terrorism, which is often used to falsify and implement identity and travel documents as a means of spreading them. (2)
- F. Eliminate the suffering of citizens due to the daily life aspects, so the electronic government provides the citizen mobility to extract his documents or inquiries about his concerns . (3)

1. What is eGovernment?

E-government (short for electronic government) is the use of information and communication technologies organisations. (4)(ICTs) to improve the activities of public sector) E-government elsewhere is the use of electronic communications devices, computers and the Internet to provide public services to citizens and other persons in a country or region. (5) According to Jeong, 2007 the term consists of the digital interactions between a citizen and their government (C2G), between governments and other government agencies (G2G), between government and citizens (G2C), between government and employees (G2E), and between government and businesses/commerces (G2B). E-government delivery models can be broken down into the following categories: (6)

This interaction consists of citizens communicating with all levels of government (city, state/province, national, and international), facilitating citizen involvement in governance

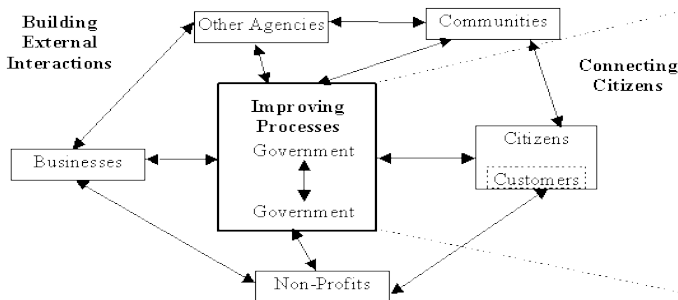
using information and communication technology (ICT) (such as computers and websites) and business process re-engineering (BPR). Brabham and Guth (2017) interviewed the third party designers of e-government tools in North America about the ideals of user interaction that they build into their technologies, which include progressive values, ubiquitous participation, geolocation, and education of the public. (7)

What Does e-Government Cover?

There are three main domains of e-government, illustrated in Figure

- Improving government processes: eAdministration
- Connecting citizens: eCitizens and eServices
- Building external interactions: eSociety

Figure : Focal Domains for eGovernment Initiatives (8)



(A) Technical readiness of infrastructures

The period between 2009 and 2013 recorded a remarkable movement in which the "e-committee" was established as a shared ministerial body headed by the Prime Minister and supported by a technical committee to study and provide the so called e-Algeria project and boosting the Center for Development Applied Economics Studies to elaborate a global survey study of technology and knowledge reality , sorting out 14 focal supports considered to the Algerian e-gov project implementation and execution during so far mentioned stage , added to all ministerial sectors central studies task given the information and communication technologies organization .

1 Talking about Algerian e-government readiness is in fact an evaluation before evaluating the preparation and grounding of this huge project in itself and beneficial to others and therefore it is responsible for its results mainly for an important body on the weight of the "Center for Development Applied Economics Studies" has been studying the project And the evaluation of another body of no less importance such as "social economic committee " (9)

Requirements for the application of e - government in Algeria

As a country seeking to establish an e-government, Algeria must achieve a set of requirements that will ensure the achievement of a clear and saf e-government wherein :

1- Institutional infrastructure:

This is done by advancing digital economy development and providing incentives that will encourage the companies establishment in the field of producing local content as an innovative engine , and despite the shortcomings of this project It seeks to activate the resources and skills of Algerian institutions working in Media and communication technologies field and export them to other markets where these requirements are intended to create the required conditions for national dialogue further development between companies and incentive measures expansion for the production of content, directing Economic activity in informatio and communication technologies field toward export.

2- Providing qualified and trained human capital

It comes by encouraging research development and innovation on the basis of any project which is the human framework, afterward it is it main engine . thus the government - In the framework of achieving an e-gov - should provide the human infrastructure that enables it to spread the use of information and communication technologies and ensure its all levels ownership,by paying attention to the safety and effectiveness of educational and training programs especially in information and communication technologies area , supporting research, development and innovation so that it can ensure the development of products And value-added services in information and communication technologies field .

3- Provide the necessary means

This also happens once introducing information and communication technologies and enhancing their use in public administration in order to make a significant change in the methods of organization and work which will make them reconsider how they are managed and organized and adapt the provided service for citizens On the web in a good and suitable manner , in addition to finding and accelerating use of information and communication technologies in companies as considered as the only guarantee for the survival of Algerian companies in the light of globalization through markets universality Via the Internet. (10)

4- Providing legal and legislative infrastructure

Which could be fulfilled through the establishment of an Algerian legal arsenal for the use of information and communication technologies, the construction of the information society and the level of the legal framework in line with international practices and the requirements of the information society in order to create a climate of confidence that encourages the establishment of the Electronic - Government.

5- Providing a financial structure:

In transitioning from a conventional to an electronic stage, Algeria must provide the necessary financial resources to enable it to complete the journey to the end and not to interrupt the process in the middle. (11)

In this regard, the role of the electronic committee and the preparation of the regulatory legal basis for the e-Algeria project are highlighted . So far the regulatory requirements, especially the legislative ones, are considered to be the embodiment of the implementation of any official government project. Thus the organizational committee has tailored all public bodies from 2003 until 2008 in order to realize any shortage of the project without neglecting the human resources function, that shaped the most important pillars of the mentioned study .

B) The central role of the human element

This was the basis of the first symposium of the first official e-government in Rome so that the whole situation was established to serve humanity, which of course in turn was the basic foundation of Algeria e-government project study , focused on the role centrality of human competencies in all activities, especially those linked to the embodiment of information and communication technology in the construction of the informative society, regardless of the Algerian state capacity in information and communications technology field forming , although the latest statistics showed that 1.46% of the total labor dealt in public administration and in economic sector belong to human resources of in information and communications technology field, which is approximately 136,662 workers. (12)

Basing on the total number of employees, 58,585 were employees, of which 1,539 were professionals in information and communication technology field, and the huge share was for senior technicians of 45.44%,

followed by engineers at 24.47%, while network and equipments makers were only 14% The website development staff has been limited for 3.25% whereas the chance of the specialists in the various fields of technology was mentioned above with the remaining 12.86%, which is equivalent to a total of 6% of the employment of the central administration. (13)

Therefore the institutions are divided into two economic operators in the field of communications and small and medium enterprises in the field of information technology and communication.

The number of telephone operators topped the list of economic operators with about 31,412 personnel in 2008 in the field of telephone services, "Algeria Telecom was the leader of 23,368 fixed line operators in the mobile phone, while the economic subscribers outside the telecommunications sector were 76,111 . (14)

The small and medium-sized Algerian enterprises that are particularly active in the following sectors: Telecommunications, Electronics and Electrical Engineering are estimated at 4 employees per organization. Which means this does not exceed 2% of the total 1,222,129 individuals in the total employment of small and medium enterprises is actually equivalent to only 24,500 workers. (15)

One of the most important aspects of the processing issue is the consolidation of the Algerian e-government in the form of modern and continuously renewable information and communication technologies, leading to economic development, especially in the period in

which oil revenues have fallen to low levels, which have to be considered , viewed and regarded. As an utmost Interest and concern to achieve economic development without relying on rents', which has resulted in the establishment of the Data processing National Council (CNI) (16) and the data processing systems National Institution (ENSI) (17) , as well as the establishment of The Data processing Center for Studies and Research (CERIST) (18) , and all of this will be too much of help to train the human element to control the techniques of data processing and by developing a national policy to invest in it at all including levels.

1) The readiness of the Ministry of Higher Education and Scientific Research

The ministry established the order of the classic and new systems LMD (licence , master, doctorate) between 2003 and 2008. 'The old system recorded a quantum leap in the specialization of computer media from 1,176 in 2003 to the ceiling of 5.149 in 2008 (which in fact is far from the international standards)) And the specialization of electronic and automatic was an increase in the number of minor composers something ' While the number of students increased to 1,747, which consisted of a total of 1,199 computers. In spite of the ministry's ambition towards the pattern of 15000 students in 2011 and 20000 in 2013, the proportion of specialists in information technology and communication field did not reach 0.76% of the 120,000 students who graduated from the University of Algeria for the academic year 2007-2008. (19)

2) Preparedness of the Ministry of Post and Information and Communication Technology

The Ministry has always established its staff on two levels

A) Specialized training in the National Institute of Post and Information and Communication Technology in Algiers (eucalyptus)

B) General training remotely in Oran

The National Institute of Telecommunications (INT) (20) has graduated during four years of study between 2003 and 2007, the bare of 426 of which are 236 engineers, 178 holders of applied studies certificates and 12 graduates with a master's degree. (21)

3) readiness of the Ministry of professional Training and Education

The number of participants in the sectors of computer and electronic media, audiovisual techniques, electrical engineering and industrial drawing was 12% of the total number of students in the academic year 2007/2008, which is 13,863 graduates. (22)

4) readiness of the Ministry of the Interior and local communities

The concerned Ministry was keen on sorting out graduates consisting mainly of : Inspectors ,supervisors , High tech ,Technicians and Technical staff

5) readiness of the training institutions accredited by the State

In this context, national institutes and specialized schools in information and communications technology have emerged at the national level with 310 accredited by the Ministry of professional Training and Education.

These institutions have been credited with graduating more than 7,000 specialists in all fields. (23)

C) Organizational readiness for the 2013 project

One of the worst ugliest consequences of technological advancement is the failure of the legislative and regulatory systems to accurate the current age issues connected specially to the intellectual , literary and industrial property problems, and mainly their patents and the development and expansion of crime , theft , piracy , hacking and neighboring the scope, which despite this task difficulty and complexity It is imperative to subject this massive development to a robust and deterrent system that protects the confidentiality and security of information. "One of the e-Algeria project sponsors and expert of information and communication technology insisted in 2016 , when he adapted the problem by ensuring the information stirring security guarantee amongst different directories and services and thou Governmental and formal and public administrations, which in turn will ensure the safety and security of the network, "that won't depends only on the hardware, but on the software and the encoding languages of Algorithme encryption, so that no one else could interfere in it .

1 - Legal texts issued on the organization of the Ministry of Post and Information and communication Technology and by its initiative (24)

In this regard, it should be noted that the drafting of the legal and regulatory framework and putting the

specific frameworks for the promotion of profile were not to be seen overnight. This justified the pains and efforts of the Ministry post information and communications technology in defining organizational texts in information and communication technology. The new regulations notwithstanding the current nature of the optimal implementation of the reforms, but it had to be modified on the pretext of the need to convert the legal version of this text to the text of structural and homogeneous, which was useful to limit the processes of interpretation of the new law contradictory, which was behind the heated debate between the ministry Commandment and authority of Duck ARTP and in particular with regard to the problematic text mode, and the last cause in the integration of the main themes of Algeria E-gov agenda stands for legal and unified framework.

The above is explained by the fact that the Law of Post and Information and Communication Technologies Sector has two main phases:

- The monopoly phase stipulated under Order 75-89, which includes the Post and Telecommunications Act . At this stage, the State was the direct and sole provider of telecommunications activities. Thus, post and telecommunications services were a public service provided by the administration to the user .
- phase of opening the field of competition initiated under the Law 2000-03 which provided the introduction of market mechanisms in the post and information and communication technologies sector.

C) The strategy of "e-Algeria"

Since 2000, Algeria elaborated an institutional legal framework stimulating the spirit of competition and enhancing the telecommunication services utilization process , especially the mobile sector within the post and communications sector policy. Although it has not pursued a clear and well prepared strategy for the implementation of a real informative society reverting digital economy , But measuring the progress made in the construction of that information society, and the assessment of the status of the information and communication technology sector, is generally based on a set of comparative indicators that allow Algeria to be located on the international scene, where in respectively:

1 - Key indicators of information and communication technologies evolution

- Digital Feasibility indicator.
- Digital access indicator.
- Electronic Preparation indicator.
- Information and communication technology Publication indicator .
- E-government Preparation indicator .

According to the modern technology language , in the entirety of the latter's , determine the status and rank of any country on the global electronic level, which inevitably lead us to recognize in this regard - especially after the analysis of these indicators - the significant backwardness recorded by the Algerian government in this regard, and Algeria position is still

registering a delay, particularly within the area of medium-sized countries.

In order to improve this situation, it is necessary to define and implement a vision for the future and a practical approach to make the informative society and the digital economy improve economic growth and constitute an alternative economy for oil resources along the lines of What countries have achieved this transition.

Logically speaking there should be a grounding strategy Algeria's e-gov based on the vision of the Algerian society of science and knowledge without neglecting the profound and rapid transformations that are taking place in the world. It also includes a coherent and strong plan of action aimed at enhancing the performance of the national economy, companies and management, At the same time, it seeks to improve the capabilities of education, research, innovation and the establishment of industrial constellations in the field of information and communications technologies, and even to increase the attractiveness of the country and to improve the citizens' lives by encouraging the dissemination of these technologies and stimulating their use.

These indicators are shown in the following signs: (25)

- Internet bandwidth at two levels:
 - International Internet bandwidth, in MB / s.
 - National Internet bandwidth, in MB / s.
- Fixed Internet subscriptions (Wired)

- Fixed broadband (wired) subscriptions, which in turn are divided into two types of subscriptions:
 - Subscribe to the Internet fixed-line technology.
 - Subscribe to the fixed-line Internet via streaming.
- Subscriptions to the diverse Hertz broadband are also divided into the following categories of subscriptions:
 - ❖ Broadband subscriptions in Hertz (all that is wireless: mobile, Wi-Max, fourth-generation LTE and satellite) SAT.
 - ❖ Satellite broadband subscriptions.
 - ❖ Broadband subscriptions via fixed terrestrial hard-disk (WiMAX and 4G) LTE. - Value Added Services which can be monitored according to the following descriptions:
 - ❖ Number of multi-service kiosks.
 - ❖ Number of commercial telecommunication agencies.
 - ❖ Number of commercial agencies for mobile operators.
 - ❖ Number of communications directorates.
 - ❖ Number of Internet cafes.
 - ❖ Number of call centers.
 - ❖ Number of amplification centers.
 - ❖ Number of points of sales approved.

2 - Strategy of the Ministry of Post and Information and Communication Technology

This is the case and the inevitable challenge to rationalize a clear, precise and practical objectives strategy. specially with the depletion of oil resources that have been fueling and stimulating the socio-economic growth for a row decades , and basing on a rationale vision highlighting a purely Algerian

informative and knowledge society , and an outfitted approach to build a digital economy , that is necessary to embody the Algerian e-government strategy , thus if we consider radical and profound transformations at the international level. Therefore, the makers of this decision committed to: (26)

- ❖ Underlining a coherent and consistent plan of action aimed at enhancing the performance of the national economy in all its various departments and companies.
- ❖ Upgrade the capacity of education, research and innovation.
- ❖ Establishment of industrial constellations in the field of information and communication technology.
- ❖ Raise the attractiveness of the homeland and improve the life of the citizen.
- ❖ Promote and disseminate the use of this technology.

The Algerian government has officially and publicly supervised the setting up of the "Algeria E- gov " project, through which it has directed the fundamental objective of "keeping abreast of the technological development taking place especially at the international height", mainly to improve this endeavor - that charged state treasure huge sums and seized Long time and drained too much effort - towards the efficient services for the benefit of the Algerian citizen and institution primarily , and then shove the efforts of this development to refresh the market, which is mostly

connected to information and communications technology.

The government , On this basis established a joint ministerial team called the "Electronic Committee" supported by another technical committee specialized in the technological sector, which undertook the study and preparation of the project alongside the background of “the reality of technology and knowledge in Algeria “ survey . In fact, all of these concerted efforts to consolidate the 13- principle units plan have been coordinated with each other , up to common and specific goals , by fixing a couple of measures that should be implemented . As well as the establishment of a responsible and charged structure of information and communication technology with the central departments of all ministerial sectors.

D) the application of Algeria E-gov strategy

Assessing the current situation according to the main objectives , and the tasks and decisions that should be taken were documented and officially taken after the response and consultation ,among the public and private actors that are active and efficient in the field of modern technology and sophisticated information and communication , which was not in turn away From the scientific, research and university circles in order to reflect clearly and correctly the differences and disparities of visions on the embodiment and implementation of the multisectorial plan, to develop the latest information and communication technology that will establish and

consolidate the sound construction of Algeria's e-gov strategy.

1- E-government and the global applications (27)

Within the framework of the implementation of electronic government and global applications, the Ministry of Post and Information and Communication Technologies has initiated several projects in cooperation with other ministries. These projects are mainly focused on: Develop and elaborate a vital platform for managing content and providing online services for the relevant ministerial sectors. And this project is the development and the providing of sites for ten ministerial sectors, particularly the Ministry of Foreign Affairs, the Ministry of Commerce and the Ministry of Religious Affairs and Endowments. This project aims to allow the citizen to have an information interface on the activities carried out by the ministries and public services and related administrative procedures on the one hand, and to encourage cooperative action and the inclusion of remote services and remote procedures on the other hand.

2- Citizen portal Design and development

The Ministry of Post and information and Communication Technologies, In 2011, launched the citizen portal "El Mouwatine" (28) in order to allow the citizen to have direct and clear access to all the administrative procedures and list of services provided by the administration and to all the information that would be useful to him .

Regarding the large number of information contained in this portal, it is necessary to review the way in which this information is presented. In this regard, it was decided to rethink the submission of the portal by presenting the information in view of the perspective of the citizen and not the administration, so that the procedures should be displayed like so:

- When should this be done?
- To whom do we go?
- What should be provided?
- How long does it take?
- What outcome can be obtained?

3- Developing and improving a website dedicated to administrative procedures related to the Algerian institution establishing:

The project, which was launched in 2015 in cooperation with the relevant ministerial sectors, aims to facilitate the creation, improvement and more flexible establishment of an institution in Algeria to improve the business climate and make the national economy more attractive.(29)

This project consists of setting up an Internet portal that includes the establishment of an enterprise from the first step to the end, stage by stage, and so from the point of view of the contractor. It also plays the role of the only net that allows the centrality of procedures to establish an institution and make it more flexible.

This plan consists of filling out one form via the Internet, which will be used later by the concerned parties (Notaries, National Commercial register Center, Tax Administration and Social Security Fund for non-

employees) to be able to grant the Commercial register and Tax Identificating Number and enrolling the Social solidarity .

4- Publishing the telemedicine project

The project, which was completed in July 2015, to links five (5) university medical centers and 12 public hospital institutions , to enable the access to treatment service and telemedicine , from the mere conversion of medical files to remote screening.

The project will also provide support, training and distance training services. This will prevent patients from being transferred from one hospital to another simply for a specialist doctor examination or consultation . (30)

5-Application of electronic certification

As the basis of trust for all e-departments, electronic certification must precede every official document evacuation and / or remote procedure. The Algerian legislator therefore approved Law 04.15 of 1 February 2015, which is set forth in the general rules on electronic certification. The Act allows the Ministry of Post and Information and Communication Technologies to implement the electronic certification authority of the Government branch. This authority is tasked with framing the other party of trust (the electronic certification services providers for the account of government institutions) and so for issuing the electronic certificates used by the actors in the government branch in the G2G, G2B and G2C exchanges types. (31)

To implement this activity, the Ministry of Post and

Information and Communication Technologies will announce at the beginning of 2016 a tender for the acquisition of equipment and software to be used by the government authority in the exercise of its functions.

6-The dissemination of the global service of telecommunications Project

This project is a legitimate right for every citizen to access the telecommunication services that the government has committed to guarantee. The comprehensive service of telecommunications, especially in terms of access to Internet services, reached at least 512 kbps, with Respect for the principles of equality, continuity, inclusiveness and adaptability. The comprehensive service of telecommunications in this context is devoted to a great deal of priority and importance to the areas economically unprofitable where operators are not required to cover them according to their exploitation licenses. "This refers to areas that have no means of voice and data communications, with less than 2000 inhabitants . All the regions that meet the eligibility criteria for the global telecommunications service are regularly enumerated to cover it gradually. Already 1118 districts across the country with a population of 1249376 have been counted, this is the first call for competition was launched on 31 March 2015. (32)

7-Total service post content

Following the preparation of the requirement document relating to the responsibilities connected to the post total service signed on 27 June 2011 by the officials of the three institutions: the Ministry of Post

and Information and Communication Technologies, the Post and Telecommunications Control Authority and Algeria Post, it was agreed that the Post and Telecommunications Control Authority takes in charge total service providing . On February 29, 2012, an agreement was signed between the Director General of the Post and Telecommunications Control Authority and the Director General of the Algerian Post Office, whereby a first check was paid in an amount of 1.820 billion dinars to the postal for the total service for the year 2010. (33)

The Global Service Fund, established in 2003 by the Post and Telecommunications Control Authority, is in line with Article 90 of the Executive Decree, which provides that "the financial resources allocated to the Universal Service shall be integrated into the budget of the Post and Telecommunications Control Authority. These resources are exclusively allocated to the financing of total service. "

The total post service includes the following activities:

- Send consignments of up to two kilograms (2) including books, catalogs and periodicals
- Recommended and authorized consignments
- Packages up to a weight of 20 kg
- Telegrams
- Special missions for the blind (cycrograms)
- Payment of pensions and social transfers
- Postal attendance at the headquarters of the municipalities and in all population groups of more than 6000 residents at least. (34)

How to finance the total post service

The total post and telecommunications service benefit from the following:

- State funding specified in accordance with the Finance Act
- Possible contributions from post and telecommunications operators identified as follows:
 - The contribution to post operators is determined by 3% (3%) of their turnover
 - The contribution for telecommunications operators shall be determined in accordance with the terms of the requirenet document

A detailed statement of such accounting operations, validated by the Account Manager, shall be communicated to the Post and Telecommunications Control Authority no later than four months after the end of the fiscal year.

Contributions are paid annually in a lump sum. The dates of entitlements shall be determined by the Post and Telecommunications Control Authority •

8- The total service objectives

Total service objectives are defined in:

- Durability of postal activity,
- total postal service,
- Continuity of public service,
- Reasonable price standard,
- Quality in administrative and financial performances,
- Safety and security of deposit funds

E) - Plan of the ICT field: 2015-2019 Action Plan

The ICT Sector Action Plan (information and communication technology) aims to modernize, adapt and mainstream telecommunications infrastructures to promote the use of information and communication technologies and to foster the integration of our society into a science- knowledge- based economy.

As part of the implementation of the high flow inclusion strategy, three licenses were granted to the 3G generation of mobile operators and the enhancement of the high flow development capabilities of the land telephone (G4 for fixed telephony) of the Algerian public operator covering the launch of the 48 state capitals. There will be continuous implementing of High flow and very high flow to connect all municipalities and communities with a population of more than 1000 people for the north of the country and the communities that have a population of more than 500 people in the south of the country thanks to the optic fiber.

It is also scheduled to complete the program linking the industrial zones and educational institutions and training and health institutions, as well as 2000 municipalities auxiliaries across the national territory by the optic fiber network. (35)

As for the general use of information and communication technologies, special attention will be given to the development of information and communication technologies services for citizens and institutions, which will encourage the emergence of local applications that will contribute to the development of a digital economy and the construction

of a knowledge-expertise- based society , standing on the required national production In order to raise it to the level of international standards. The promotion of information and communication technologies applications would encourage the establishment of start-up institutions and the development of new technological parks, thus contributing to the prosperity of industry, research and innovation in the field of information and communication technologies. For this purpose, technological parks in Annaba, Oran and Ouargla will be completed and operated, as well as launching new projects for technology parks and incubators in other areas. In addition, authorities will be established to secure data and regulations, use electronic authentication and promote local exchange over the Internet. In this regard, a radical authority will be established for electronic authentication and optimization of network, database and database security operations.

1- Upgrade an effective postal service:

The Government is keen to continue the implementation of the work initiated during the five-year period, which aims to diversify the supply and improve the quality of service delivery to citizens through the intensification of the postal network and the rehabilitation and renewal. The government will also initiate the dissemination of automated media at the post office level, the deployment of automated bank windows, the development of electronic payment methods and the provision of modern means of payment.

As part of the improvement of the public service, all measures will be taken to provide conditions of high quality and security in accordance with international standards for the better reception of citizens and the fair deployment of services throughout the national territory.

2- In the area of space activity:

In addition to satellites under exploitation, studies are under way and the satellites Alsat 2b and Alsat 1b are being developed by national expertise for launch. In this regard, the Government will ensure the completion of the implementation of the space program, which is mainly focused on:

- Designing, implementing and launching space systems that respond to national needs (Alcatoms 1, Alsat 3 and Alsat 4) and developing applications for their use
- Completion of basic space facilities (complex BOUGUESOUL) and acquisition of special equipment (Center for Space Applications and Satellite Development Center)
- Promote and recruit specialized human resources in this field, which requires very high technology through intensifying training and transfer programs.

3- High and very high flow strategy

Within the context of developing the general policy of the government and the work program for the informative society developing , through the infrastructure and the means of telecommunications and the use of information and communication

technologies, the Ministry of Post and Information and Communication Technologies has prepared a national plan for the development of information and communication technologies. This plan is based mainly on a set of key objectives that will contribute effectively to the implementation of the directives of the President of the Republic. It aims to achieve the following:

- Consolidate Algeria's stable foundations
- Improving good governance
- The pursuit of human development
- Increase in the dynamics of economic growth

The spread of high and very high flows is one of the fundamental pillars of development. It generates many reflective changes in almost all areas such as growth, competitiveness, innovation, etc.

- The provision of an effective telecommunications network- in addition to the competitive offers of high flow across the national territory - will allow increasing the competitiveness of companies and enhancing their attractiveness as well as the revival of the local economy.

- The development of information and communication technologies enhances access to knowledge and contributes to the improvement of daily life for individuals: telecommuting, tele-management (e-management), online shopping and home care .

- The inclusion of communication networks in urban and regional development plans reduces the digital divide in all its geographical, technological, social and cultural aspects.

- With information and communication technologies, it will be easy to maintain the development of population activities within some isolated areas of the country.
- As a factor of regional and social cohesion, information and communication technologies strongly contribute to the provision of effective services to citizen

Therefore, the high and very high-flow telecommunications network should be in shape to provide the necessary capabilities across the entire national territory while ensuring quality and safety in accordance with international standards. This network represents the basis for all actions aimed at developing online services for citizens, institutions and departments. The main objective is to develop high-flow, and very high-flow wireless telecommunications infrastructure, secure and deliver high-quality services across the country.

A number of other measures have been taken to enhance, intensify and diversify access technologies and ensure high-flow, and very high-flow infrastructure. These measures relate to the granting of 3G licenses to the three mobile operators (2013)), Fourth generation fixed line licenses (2014), fourth generation mobile phone (soon), generalization of optic fiber transmission across national territory and reduction of the digital divide (global telecommunications service).

In addition, the legislative framework (elaborate the law text regulation) for post and telecommunications is being updated to enable the sector to keep abreast of

new information and communication technologies by introducing new concepts such as opening the fixed internet market and infrastructure sharing (local roaming) and number portability and technological neutrality. In this context, the strengthening of telecommunications infrastructure is based on three main axes:

- Completion and modernization of the access network by upgrading the infrastructure within the technological field to ensure technical developments and market needs in terms of diversity of services.
- new infrastructure Developing by increasing the capacity of the high and very high-flow network (fiber optic and fixed-line spreading), especially to accelerate the output of white, rural and isolated areas and meet market constraints.
- Improving the quality of services and customer reception

4- content and services Developing via Internet

As part of the policy to mainstream the use of information and communication technologies, the Ministry of Post and Information and Communication Technologies promotes the development of national content and Internet services. In that connection, it was decided to reorganize the functioning of the field. Dz for:

- Respect international standards and recommendations in the field.
- Ability to quickly distinguish between different categories of websites: Gov..dz and commercial.cz and educational.edu.dz .

- Facilitate procedures for obtaining domain names in .dz

In the same context, the Ministry of Post and Information and Communication Technologies is promoting the development of mobile applications in Algeria. Accordingly, it was decided to create an Algerian space or market that would promote the production and dissemination of designed applications to and from Algerians.

5- Evolution of information and communication technologies products imports

According to the latest statistical report of the Algerian Customs Department on foreign trade - December 2014 - mobile electrical products are ranked third in the classification of the industrial family products imported directly behind the importation of cars – in its double kind - reflecting the importance of the products of information and communication technologies in the national economy. The Ministry is interested in the development of these imports between 2010 and 2014 as well as its main components.

Overall, there is a clear development of information and communication technologies import by more than 100 % . On the other hand, it seems that the percentage of finished products imports far exceeds that of semi-finished products imported or spare parts.

It is also apparent that the importation of data processing machines as a final product is the most important in its class, as it has doubled in 2014.

In addition, the evolution of data processing apparatus equipment imports seems to be following the

data-processing equipment imports expansion, as it has doubled in size, as are the imports of antennas, navigational devices and optic fiber devices, which have grown more than 100 % in 2013.

F-Post promotion strategy

Pursuant to the instructions of His Excellency the President of the Republic regarding the public service of the neighborhood and the reduction of the digital divide, the endeavor adopted within the framework of the implementation of the postal sector policy aims to democratize access to a modern postal service through intensive use of information and communication technologies, while stimulating financial integration, that stands for the National economic solidarity axe .

1- Democratization of modern postal service access

In this regard, it is decided to continue the activities of modernizing and intensifying the postal network and activating all procedures and means to improve the conditions of receiving citizens and diversifying the offers and the proposed services, which will contribute to reducing regional differences and social disparities.:

Thus, in the area of postal service, the modern postal service access democratization with intensive use of information and communication technologies will remain one of fundamental priorities. This access can be manifested in physical, electronic or mobile networks.

It is about allowing citizens to benefit from postal services, every inch of the national territory, using all

available means, including the public-private partnership. So the objective is made of :

- bringing postal and financial services closer, by giving priority to the opening of neighborhood postal points in large metropolitan areas and in isolated ones .

- Deployment of postal presence at major transport stations and airports.

- Support and revitalize rural communities, areas and the ones facing difficulties or isolation, in order to achieve population stabilization, through the acquisition and deployment of mobile offices .

- Transferring the postman's profession in order to make it a genuine business aid that provides various postal and financial services at the residence.

- Installing multi-performance GABs in large business centers and in secure public places operating in self-service format 24 hours a day, 7 days a week .

- Adhering to the State's obligation to provide universal postal service to the population concerned by providing access across the national territory to basic postal and financial services of a quality and affordability.

- Rehabilitation of the public service and the promotion of the concept of neighborhood, which contributes to social harmony ensuring through an activity aimed at achieving three objectives of service continuity, equal access and transparency .

- Achieving the sustainability of public benefit tasks for vulnerable populations.
- Facilitate access to information and communication technologies by deploying the ambitious Post Office Computing (IBP) (36) program, setting up automated cash registers and electronic payment terminals and developing applications for tele-services or mobile networks.

So it is necessary for this purpose, to update the legislation and regulation in force, especially to redefine postal services, taking into consideration the development of the global service and the public one , including the harmonization of networks and opening the distribution branch for youth entrepreneurs in the framework of youth employment,Modernization will also involve the adoption of a modern postal service offering thanks to information and communication technologies, which will include agencies, means and tools of production as well as proposed services.

Modernization will be achieved through enhanced automation, intensive computing and digitization, especially the development of on-line services, remote access and the use of mobile applications.

With regard to postal agencies, the "Algeria Post" brand should conform to the development of society, respecting the structure and environment of each region.

Therefore, the post office activities computerization at the level of the cashiers and behind them represents an important workshop to modernize the postal sector.

This structured project, based on the modernization of post offices, will not only change the behavior of citizens and the cashiers assistant but also aims to:

- Improving services quality provided to citizens.
- Reduce queues.
- Secure transactions.
- Digitizing daily and monthly checks and balances,

In terms of means and tools of production, it is concerned with the reduction of handicrafts to the maximum extent possible through the generalization of computerization processes and the use of modern methods and more effective.

2- Innovating centers and projects Developing

The Post and Information and Communication Technologies Ministry follows a strategy developing process for technology parks activating , which aims to: (37)

- Activating information and communication technologies dynamic cluster.
- Representing a physical and virtual focus of ICT activities in Algeria.
- Providing the Algerian enterprises technical support and work quality.
- Accelerate the proportion of configuration and expansion of start-ups , small and medium enterprises .
- Diversify the information and communication technologies value chain.

- Strengthening the information and communication technologies exporting means .

3-The digital divide reducing and uses mainstreaming

a- Internet access democratization in public spaces

The role of youth, the role of culture, public reading institutions, mosques, etc was the sectoral plan of Post and Information and Communication Technologies Ministry that has been adopted and based on a combination of efforts And exchange of resources. So all of this aims mainly to open the world wide web on common spaces level for the Algerian citizens primarily the most deprived grade.

Eventually, The coordination and consultation process initiated by the Ministry of Post and Information and Communication Technologies with four other ministries, namely the Ministry of Culture, the Ministry of Youth and Sports, the Ministry of National Solidarity, the Family and Women's Issues, and the Ministry of Religious Affairs and Endowments, has already connected more than 2000 institutions to the Internet , attributed to the citizens as first step 2010 -2012, divided as follows: (38)

Ministry number

The Ministry of Youth and Sports	1156
Ministry of Religious Affairs and Endowments	675
The Ministry of National Solidarity, the Family and	

Women's Issues	63
The Ministry of Culture	118
Total	2012

In addition to providing access to the Internet for people with small incomes, this process has also contributed to the revitalization and mobility of these public spaces. Indeed, citizens who visit these places, to surf the Internet, are able to identify at the same time various cultural and artistic activities and other activities at the level of these institutions.

Adding to the process of democratizing access to the Internet in shared spaces, the Post and Information and Communication Technologies ministry , together with the National Education ministry , has begun the process of connecting primary schools to networks.

b - Child Protection Online

Currently, with nearly 3 billion users, the Internet has become an amazing dynamic world because of its vast potential, being able to respond to the society key issues (access to information, knowledge, social and economic services, online learning, e-transactions and access to health care , e- government etc.). However, the risks associated with cyber security are increasing at the domestic and international levels there which : (39)

- Show shocking images (pornographic, violent, and such dangerous behavior ...)
- Personal information diffusion and continuance .

- Online harassment (threats and extortion ...)
- Attempts of fraud, impersonation and account piracy.

These challenges require collective reaction, especially when it comes to the protection of minors. In this regard, many protection measures have been taken, particularly the awareness-raising campaigns, especially those organized by Post and Information and Communication Technologies ministry, as well as free parental protection at the disposal of the parents.

As part of the Child Protection Initiative on the Internet, the Ministry of Post and Information and Communication Technologies has joined the initiatives of the International Telecommunication Union (ITU), which include the development of guidelines to create the conditions for a safe and secure Internet world for future generations.

c- Research and development

Industrial development in the world is a direct result of the enormous research and investment efforts in the information and communication technologies field. And its impact is evident in the dominance of large multinational companies in global stock exchanges trade interactions.

As national hub, the information and communication technologies sector has become aware of these facts and has created a conducive atmosphere aiming to strengthening research and development activities for more than 10 years, especially through: (40)

- Establishment of the Center for Study and Research in Information and Communication technologies (CERTIC), which is legally a public institution of a scientific and technological character.

- The establishment of research laboratories named “LABORTIC” and “LARATIC” respectively, in the National Institute of Post and Information and Communication Technologies and the National Institute of telecommunications and Information and Communication Technologies.

- The creation of a research network called RESARTIC (the Algerian Network for Research in Information and Communication Technologies), consisting of 20 research laboratories and socio-economic institutions of the Postal, Information and Communication Technologies.

- The establishment of research units in the economic and social institutions of the sector.

- Establishment of the optic fiber production unit.

- Establishment of the Technology Transfer Office (BTT) (41) in cooperation with the World Intellectual Property Organization and the following ministries: Ministry of Foreign Affairs, Ministry of Industry and Mines, Ministry of Higher Education and Scientific Research

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