

* See Fang Meng, Current Public Relations status in China, Master of Arts in professional Communication thesis, East Tennessee State University, United States, 2007, pp 19,250.

³¹ Yi Hsiu Lin, *ibid*, p 21.

³² Fang Meng, *ibid*, p 19.

³³ Shirley Harrison, *ibid*, p 46.

³⁴ Yi Hsiu Lin, *ibid*, p 22.

³⁵ Shirley Harrison, *ibid*, p 46.

³⁶ Yi Hsiu Lin, *ibid*, pp 22,23.

³⁷ Shirley Harrison, *ibid*, p 46.

³⁸ Yi Hsiu Lin, *ibid*, pp 22,24.

³⁹ Shirley Harrison, *ibid*, p 46.

⁴⁰ Yi Hsiu Lin, *ibid*, pp 23.

⁴¹ See, Florid Hawkins Carpenter, The role of public relations in socially responsible business, Master of Arts in journalism and mass communication, Chapel Hill, United States, 2005, pp 10, 11.

⁴² James Lewis was leader of the UN Habitat (UNCHS) team for preparatory reconstruction assistance to the Algerian Government Interministerial Commission for the study of Reconstruction of El Asnam after the earthquake of October 1980.

⁴³ James Lewis RIBA, The Algerian Earthquakes of May 2003: Some precedents for reconstruction, unknown edition, unknown country, 2003, p1. ([http://datum.gn.apc.org/PDFs/TheAlgerian Earthquakes of May 2003.pdf](http://datum.gn.apc.org/PDFs/TheAlgerianEarthquakesofMay2003.pdf))

** *ibid*, pp 4-5, and see Bendimered Fouad, Chapter one, Earthquake vulnerability, of school building in Algeria, risk management solution, OECD, 2004, United States.

⁴⁴ <http://en.wikipedia.org/wiki/Boumerdes>

⁴⁵ Bendimered Fouad, The Boumerdes, Algeria, Earthquake of 21 May, 2003, Earthquake Engineering Research Institute: EERI, California, 2003, p6.

⁴⁶ Wikipedia, *ibid*.

⁴⁷ *Ibid*.

**** Bendimered Fouad, *ibid*, p2.

***** Fouad Bendimered, *ibid*, pp 10, 11.

- ⁵ Translated from: Bernard Lamizet and Ahmed Silem, Dictionnaire Encyclopédique des sciences de l'information ET de la communication, Ellipses, 15 édition, Paris, 1997, p120.
- ⁶ Bernard Lamizet and Ahmed Silem, Ibid, p 120.
- ⁷ Ibid.
- ⁸ Ibid.
- ⁹ Matthew W. Seeger, Timothy L. Sellnow, Robert R. Ulmer, Communication and Organizational Crisis, Praeger, 2003, p65.
- ¹⁰ Robert L. Health, Encyclopedia of Public Relations, SAGE publications, volume 2, USA, 2005, p 430.
- ¹¹ Ibid, p 431.
- ¹² Robert L. Health, Ibid.
- ¹³ Bernard Lamizet and Ahmed Silem, Ibid, p 130.
- ¹⁴ See <http://en.wikipedia.org/wiki/Organization>
- ¹⁵ Bernard Lamizet and Ahmed Silem, Ibid, p 228.
- ¹⁶ <http://www.businessdictionary.com/definition/organization.html>
- ¹⁷ http://managementhelp.org/org_thry/org_defn.htm
- ¹⁸ Rhee Yunna, The employee- public- organization chain in relationship management: a case study of a government organization (James E. Grunig chairman), a philosophy PhD thesis, Maryland University, United State, 2004, p 7.
- ¹⁹ http://wiki.answers.com/Q/What_are_the_5_levels_of_organization_in_the_environment
- ²⁰ <http://www.thefreedictionary.com/environment>
- ²¹ http://wiki.answers.com/Q/What_is_the_definition_of_an_environment
- ²² <http://www.businessdictionary.com/definition/environment.html>
- ²³ Rhee Yunna, Ibid, p 16.
- ²⁴ Yi Hsiu Lin, Public relations roles and models: a case study of the super basketball league (SBL) in Taiwan), a philosophy PhD thesis, Northern Colorado University, United State, 2007, p13.
- ²⁵ Shirley Harrison, Public relations: An introduction, 2nd edition, Thomson Learning edition, London, 2001, p 2.
- ²⁶ Robert L. Health, ibid, p 684.
- ²⁷ Ibid. p 3.
- ²⁸ Shirley Harrison, ibid, p 3.
- ²⁹ Yi Hsiu Lin, ibid, p 14.
- ³⁰ Shirley Harrison, ibid, p 2.

are Public relations in disaster diplomacy, but what about public information and two way symmetric models?, for him it is not public relations, that why I suggest that these two models are just a kind of *communication diplomacy*.

In sum,

External communication = \sum (*communication diplomacy* + *PR*)

Communication diplomacy = \sum (*public information* + *two way symmetric*)

PR = \sum (*press agency/publicity* + *two way asymmetric*)

VI. Conclusion:

As a conclusion of all this the relationship between communication, environment and public relations can be extracted from the overlap of the concept of environment, Lasswell questions and the previous analyzed activities as PR models, is as follow:

Lasswell said: the communication process is resumed in these questions: “*who says what to whom in which channel with what effect?*”

Environment is “*all the physical and moral factors or activities that affect inside and outside the organization whether positively or negatively.*”

Now the communication process in crisis will be like this:

Who: is the sender of the disaster related activity.

Says what: are all the activities at the post crisis time.

To whom: are the receiver of the message whether victims or the Algerian state.

In which channel: all the channels that carry the message, which could be: press, direct communication or diplomatic channels as condolence letter, or international aids.

With what effect: this could answer the following question: “is the effect positive or negative?” it is easy to know according to a simple factor which is reputation.

How: it refers to how is the effect? Is it positive or negative? The answer of this question is the purpose of practicing the four PR models; it could be improving image with propaganda (press agency model) and changing attitudes and public opinion toward target by using two ways - asymmetric model.

When: it is the post crisis time or the 21 May 2003 Boumerdes earthquake.






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¹ Marra Francis, Crisis public relations: a theoretical model, a PhD thesis presented to University of Maryland, UMI edition, USA, 1992, pp72, 73.

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⁴ Julia T. Wood, Communication in Our Lives, Peking University Press, 3rd edition, Beijing, 2004, p15.

communication	*) , (2*) , (5*) , (6*) , (7*) , (9*) , (11*) , (12*) , (14*) ,	organizations  victims	/	/	organizations  victims
	(3*) , (4*) , (8*) , (13*) , (15*)	/	/	/	Algerian people  victims
	(16*) , (17*)	/	Foreign countries  Algerian state	/	Foreign countries  Algerian state
Leading figures		P.T. Barnum	Ivy Lee	Edward L. Barneys	Barneys, educators, professional leaders

According to the activities done in first category and in second category (the second category is shown in the previous table) we conclude that the four models of public relations are all practiced in the internal environment while the external environment contains only activities that refer to public information model and two-way symmetric model.

Internal communication = PR models = \sum (press agency/publicity + public information + two way asymmetric + two way symmetric)

The classification of the activities as PR models were done according to purpose and impact of the activities on the organism reputation, all what is done for the purpose of propaganda and improving reputation and image is seen as press agency or publicity model or two-way asymmetric model; this model certainly is two-way communication but its purpose is using scientific proof to convince sender and change their opinion. While these who haven't any intention but cooperation and help, are two-way symmetric models in purpose of mutual understanding and exchanging condolence. Public information is one way communication in a purpose of informing people without any propagate intention.

According to Ilan kelman, the disaster diplomacy related activities which have propagate and influential goal are public relations, but he didn't mentioned the other PR models which haven't this aim. Public relations activities are divided into four models referring to an excellent practice of PR. That's why according to his study, the models of press agency and two way asymmetric

▪ **The second category: Individual activities done by Non-governmental organizations and individuals:**

Characteristic		Model			
		Press agency/ publicity	Public information	Two-way asymmetric	Two-way symmetric
Actions		(1*), (2*), (5*), (6*), (7*) (9*), (11*), (12*), (14*)	---	---	(1*)__ (16*)
purpose	(1*)	Propaganda to National federation of oil, Gas and Chemistry	/	/	Mutual cooperation and solidarity.
purpose	(2*)	Propaganda to Sostatra soccer team	/	/	//
	(5*)	Propaganda to restaurants	/	/	//
	(6*)	Propaganda to Algeria Bank	/	/	//
	(7*)	Propaganda to Barid El Jazair	/	/	//
	(9*)	Propaganda to National Union of Algerian Farmer	/	/	//
	(11*)	Propaganda to Zine Eddine Zidan	/	/	//
	(12*)	Propaganda to National Font of Liberation	/	/	Mutual cooperation and solidarity.
	(14*)	Propaganda to Naftal	/	/	//
	(3*), (4*) (8*), (10*) (13*), (15*), (16*)	/	/	/	Mutual cooperation, solidarity and exchanging problems
	(17*)	/	Informing state and victims about their solidarity and deep sorrow	/	/
Nature of communication		One-way truth not essential	One way truth important	Two-way imbalanced effects	Two-way balanced effects

Communication is also divided as known into internal and external communication, according to the environment of the organization. Here our organization is the Algerian state which makes:

Internal communication = Internal environment

External communication = External environment

The internal communication is also sub-divided into horizontal and vertical communication.

The horizontal communication is all the activities, strategies and methods used from up to down there is a specific difference between sender and receiver according to the nature of the relationship, while the vertical communication is a communication between sender and receiver in the same level rank.

In this research the horizontal communication is all the activities done from government to victims, while vertical communication is all the activities done by individuals to the victims. So

Horizontal communication = Mezzo environment

Vertical communication = Micro environment

Internal communication = Macro environment

- **Public relations:**

- **The first category: Activities done by Ministries (governmental institutions which represent the state):**

Among the chosen activities; 18 were for using publicity or propaganda -reflecting press agency model- to the government, to improve its reputation after a damage that lasted more than fifteen years. Two activities were played the informational role to the victims instead of public information model, while two others were taken to give victims scientific excuses for the collapse of buildings, apologize, and promises to punish the responsible. This model two-way asymmetric was essential for a scientific influence towards the victims, they were under choc and lost almost everything, they needed concrete reactions. Logic was important to persuade them. The third model of PR two-way symmetric was represented by four activities in purpose of mutual understanding and exchanging information to provide aids or for reconciliation.

Government used one way communication model through press agency and public information models and two way communication through two-way asymmetric and two-way symmetric models. But press agency was the most used model which refers that government focused on publicity and propaganda, in goal to improve the state reputation.

- * “Colin Powel” in a condolence letter said: “we are truly sorry for what happened to Algeria, all our condolence to the victims, we will continue discussions with the government about their needs, and we will not relent in giving aids”.

2- Discussion:

- **Environment:**

According to literature review, *environment is all the physical and moral factors or activities that affect inside and outside the organization whether positively or negatively*. Environment is divided into internal and external environment according to the inside and outside the organization.

The previous studied activities are all physical and moral activities done by the Algerian state, individuals and other countries. They have impact on the research unit of analysis which is the Algerian state. The activities had multiple impacts according to their purpose, which means that these activities are the environment related to the Algerian state at the crisis. So all the activities done in the three categories are the environment of the Algerian state related to Boumerdes earthquake.

The three categories refer to the environment levels. As stated before the first and second categories are all activities done inside the country while the third category is planned outside the country by other units addressed to the studied unit. This makes the first and second category *internal environment* and the third category *external environment*.

The two first categories are all internal environment, they are activities done by the government and people, these two senders allowed me to suggest a sub division to the internal environment. So second category will be *micro environment*, and the first category is *mezzo environment*. As a result external environment or the third category is *macro environment*.

Micro environment level = all the PR models practiced by small and private organizations and their relations with the affected people in the crises.

Mezzo environment level = all the PR models practiced by the Algerian state's institutions and their relation with the affected people.

Macro environment level = all the PR practice by state with friendly and enemies country.

- **Communication:**

Communication is *all the communicational activities, strategies and methods used inside organizations is internal communications while all the communicational activities, strategies and methods used outside the organization is external communication*.

This makes the activities related to the crisis: “communicational strategies, activities and methods done from sender to receiver, with specific channels, to realize a specific target.

- * The Republic of Libya sent four planes of aids within groups of rescue and ten tones of tents. It sent also 27 doctors in bones surgery, general surgery and anesthetists, they also sent medical devises.
- * Egypt sent also four planes full of 12 tons and 740 kg of rescue equipment and 6 tones of medicines.
- * The Sultanate of Oman sent 12 tons of weal, 10 tons of dried milk, , five tons of tents and blankets, four tons of children biscuits, five tons of tuna, and five tons of medicines.
- * Syria also sent a plan full of 20 tons of medicines, food and tens.
- * Yemen also helped victims with 58 tons of medicines, food and tents.
- * A number of Arab and foreign countries sent more than 30 tons of food, rescue equipment, medicines, four-wheel drive cars, mobile health centers and 22500 blankets.
- * The French Red Cross send a group composed from 17 persons to help the Algerian Red Crescent.
- * The minister of defense of Belgium visited Algeria and brought purifying water's equipments and tents.

CONDOLENCE AND MORAL SOLIDARITY (17*)

- * The American president “Bush” called the Algerian president “Abdel Aziz Bouteflika” and gives his condolence to the Algerian people.
- * The Syrian president “Bachar Al Assad” gives a call to the president and expressed his truly condolence to the victims.
- * The previous prime minister and current president of France “Nicolas Sarkozy” went to Algeria and visited the affected place where he expressed his condolence to victims. Sarkozy said in his visit to Morocco that his visit to Algeria was a good opportunity to retied relations.
- * The president of France Diplomacy Mr. “Dominic De Vilpin” expressed the solidarity of the Group of Eight with victims and they gave their condolence to the victims.
- * The European Union from Brussels expressed sadness after what happened to Algeria at Boumerdes earthquake.”Javier Solana” said that the Union is ready to send aids to help people. And they send a condolence letter to the Algerian president.
- * Mr. “Yan Cowan” the president of “General Assembly of United Nations” send his truly condolence, and ask all the countries to send aids and help victims.

- * “Barid Al Jazair Organization” set of mobile vans to facilitate the withdrawal of money.(7*)
- * Many cities sent aids to the victims such as the city of Mssila. Its population donated 2000 tents, 2000 blanket, 12 trucks full of medicines, and food. They sent also doctors and psychologists.(8*)
- * National Union of Algerian Farmers collected donations and sent them to the victims.(9*)
- * Inspectorate of Education OF Algiers city placed for student seven telephonic lines to contact psychologist.(10*)
- * The international footballer “Zine Eddine Zidane” sent condolence to victims, and he confirmed that he is proud of being an Algerian.(11*)
- * The secretary general of National Liberation Front “Ben Flis” visited the affected place and sent his condolence to victims.(12*)
- * More than 923 teachers and 725 employees at the University of “Colonel Hadj Lakhdar” donate 3 days from their salary to the victims.(13*)
- * The organization of “Naftal” responsible of natural gas sent trucks full of food and blanket to the affected people and placed a green line to receive complaints.(14*)
- * In all over the country many people went to hospitals for blood donation.(15*)
- **The third category: Activities done by foreign countries:**

After the earthquake many foreign countries hurry to send condolence and aids to Algeria, as disaster diplomacy activities. In this part I will site some of these activities according to the studied eight numbers of “Sawt Al Ahrar”.

AIDS (16*)

- * The prince of Kuwait sent his director of “Aid Management”, Mr. “Ibrahim Fodri” with a plane full of 38 tons of food, medicine, and tents. And he went to hospitals to visit the victims.
- * Fourteen Arab countries sent a lot of planes full of aids like: medicines, food, tents, and equipments that helps in searching alive. Jordan sent two planes given from the Hachimist Charity Organization of Jordan.
- * The kingdom of Morocco sent three planes full also of food, tents and medicines. They sent doctors, psychologists, group of rescue and two trucks of rescue and lifting debris.

In sum, all these activities were done for:

- * Rescuing victims who were under debris.
- * Providing aids to the victims as food, water, blankets, tents and medicines.
- * Informing people about the disaster activities taken to help victims.
- * Exchanging information and collaborating in collecting aids.
- * Giving scientific and logical excuses to the citizens about the reasons for the collapse of new buildings and promising them to punish the responsible.

This category is referring to all the activities done by the governments towards victims, such as: ministry of Housing and Urbanism, Ministry of Defense, Ministry of Social Development and Ministry of Employment and National Solidarity, they all represent government, and they all refer to government.

- **The second category: Individual activities done by Non-governmental organizations and individuals:**

These activities were done by non-governmental organizations, or private actions done by people to help victims. This part revealed solidarity, maturity and sense of responsibility toward crises. People forgot all their problems and hurry to help their friends; it was a real scene of harmony. The Algerian press such as “Sawt AL Ahrar” wrote about these activities. I summarize them in these activities:

- * The employees of the National Federation of Oil, Gas and Chemistry donate one day from their salary to the victims of the earthquake. They collect also tents, food and medicines.(1*)
- * “Sostara” soccer team donated the income of a football match against Mali to the victims. The number of fans was big; they all come to contribute in helping their brothers in Boumerdes. “Chabibat Al Kabayil” soccer team also donated the income of a football match against Senegal to the victims. Same to Sostara match playground was fool of fans.(2*)
- * Many Algerians crossed long distances to help victims who where under debris. Two young people said that they come from other city, they are unemployed people, they borrowed money to buy train tickets and reached the place in hope to find some alive.(3*)
- * Some dealers come from all over the state with trucks fool of food, water, milk, blankets, and tents.(4*)
- * Some restaurants prepared hot meals and distribute them to victims.(5*)
- * “Algeria Bank” opened an account for donation for victims.(6*)

military hospital “Ain EL Naja” received in the first minutes more than 150 injured, they opened even study halls, they operate injured people freely as heart operations. In the first three days 180 operations were done 90% for bones surgery and 10% of eyes surgery. They even provided 10 psychologist and 10 psychiatrics, these doctors had played a good role in approaching and build bridge between people and army.

8- The army provided medicines, blankets, tents, and established pre-fabricated WC.

9- Since the first hours, the army went to the affected place they used trucks to remove building’s roof that weighs above 30 tons, in goal to find some alive.

10- They established 6 phone lines to facilitate communication with the central base.

11- The army provided drinking and washing water and provided a 1000 meal every day to the victims.

12- To insure security the military barracks received victims to spend night inside with the soldiers. And the day after, many soldiers took the task of protecting people and their goods, especially those under debris.

13- They established temporary communication cells, to facilitate the communication with victims for their needs, and for receiving complaints. These cells were also established to transmit a good image for the army through national press. Many newspapers wrote about these activities done by the army.

▪ **Other activities:**

14- In the same night the president “Abdelaziz Bouteflika” went to Boumerdes to check and see the situation, and then he went to the hospitals to visit injured people ⁴⁸.

15- The vice president “Ahmed Ouyahiya” announced that council of ministers agreed to give 700 thousand DA million for each victim ⁴⁹.

16- Renewing 80% of waterways and the provider of water reservoirs ⁵⁰.

17- The electricity was cut off from 100 thousands of people. The government succeeded to recuperate electricity to 80% of customers.

18- The ministry of solidarity provided 10 to 12 thousands hot meal every day and more than 120 trucks full of aid every day.

19- The ministry of Social Development with the coordination of Employment and National Solidarity made a contract with unemployed doctors, psychologist for duration of six months.

20- The provider of 4000 bottle of gas and 2000 oven ⁵¹.

21- The adoption of compulsory financial law to cover the earthquake damage ⁵².

22- In 27 May 2003, the government put up 150 tents in “Okil Ramdan” stadium, and they relocate more than 140 families in “Azouni hall” in “1st November” stadium.

23- The state starts to broadcast programs to collect contributions.

severely impaired; the repair of drinking water system had cost about 34 millions USD, whereas the repair of transportation systems and other public work facilities exceeded 30 million USD.

V. Findings:

1- The 21 May Boumerdes earthquake related activities:

After analyzing newspapers I found that the activities related to Boumerdes earthquake disaster were done by three categories:

- **The first category: Activities done by Ministries (governmental institutions which represent the state)**

In this part I focused on the activities done by the government and its institutions toward the affected people by the Boumerdes earthquake. In goal to abstract the Public Relations models related to these activities.

These activities were abstracted from the analysis of eight numbers of “Sawt Al Ahrar” newspaper from Thursday 22 May 2003 to Saturday 31 May 2003, and two numbers of “El Djeich” magazines numbers of June and July 2003.

- **Ministry of Housing and Urbanism:**

The collapses of new buildings reveal frauds in construction scales, and lack in surveillance. So the ministry was obliged to improve its reputation. Many activities were done by this ministry such as:

- 1- The minister “Mohammed Nadir Hamimid” placed a group of experts to open investigations about the reasons of the collapse of buildings. And he confirmed that 3000 pre-fabricated houses in Algiers and Boumerdes will be placed in the earlier times ⁴³.
- 2- Council of ministers agreed to build 20 thousands social houses in two years. The government designated 114.3 billion DA to this project ⁴⁵.
- 3- 1.605 billion DA for reconstruction of bridged and roads ⁴⁶.
- 4- The state gives some scientific and logical excuses to the citizens about the reasons for the collapse of new buildings and promised them to punish the responsible.
- 5- The state says that the slag of contractors and their robbery to the building’s materials was the cause of the collapse of new buildings.

- **National Army:**

The National Army reputation was damaged and people lost confidence; They couldn’t believe anymore that army can help people in their disasters.

- 6- The administration divided the region into sectors and sub-sectors to facilitate communication tasks and accelerating the provider of necessary aids ⁴⁷.
- 7- They contribute in rescuing people who were under debris. And they established treatment centers especially to those injured victims and who have chronic diseases, and the principle

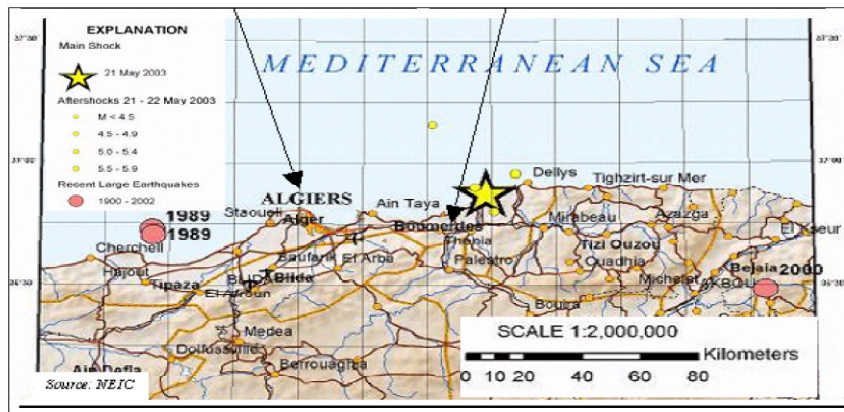


Figure2***: Location of the May 21, 2003 Boumerdes, Algeria, Earthquake

The main shock caused the loss of 2,278 lives, injuring more than 11,450 others, making about 200,000 homeless and 45 people missing; it destroyed or seriously damaged at least 128 000 housing units distributed as follows: Algiers (78 000), Boumerdes (34 000), Tizi Ouzou (7 000), Bouira (4 300), Blida (2 500), Tipaza (1 700), Béjaia (850) and Médéa (150) in eight provinces.

Figure3: Schematic map showing the location of the earthquake epicenter relative to urban areas such as Boumerdes, which sustained considerable building damage.



The quake had cost more than 5 billion USD, this amount represent 10% of Algeria's total GDP (for 2001). Many buildings had been damaged as: the library and other building in the University of Science and Technology, the largest university campus in the country, located in the district of Bab Ezzouar were closed to allow for damage assessment and repairs.



Figure4, 5****: Damage in schools and Tenia hospital

The major industrial complexes, including the truck factory SNVI of Rouiba were also put out of commission due to damage to building and equipment. The water distribution system was also

Boumerdes was created in 1958, toward the end of French colonial era, as part of a French administration economic reform plan for Algeria. It was intended to serve as an administrative and educational outpost for Algiers. This role was continued after independence, as the Algerian government located several research institutes and universities in Boumerdes⁴⁵. The city is famous as a scientific center, including a number of national institutes and the University of M'hamed Bouguerra. The institutes include l'Institut Algérien du Pétrole (The Algerian Petroleum Institute IAP), Faculty des Hydraucarbures et de la Chimie (Faculty of Hydrocarbons and Chemistry FHC), l'Institut National d'Électricité et d'Électronique (The National Institute for Electricity and Electronics INELEC), l'Institut National de Génie Mécanique (The National Institute of Mechanical Engineering ENGM), l'Institut National des Industries Légères (The National Institute for Light Industries INIL).⁴⁶

The city is also known as an industrial center containing the headquarters of Sonatrach Exploration, l'Entreprise Nationale de Géophysique (ENAGEO), and Le Centre de Recherches et de Développement (Research and Development Center for Sonatrach CRD).⁴⁷

The rigorous planning process for Boumerdes has continued through the years. Several generations of construction styles sit side by side in the city: the first generation of buildings (built between 1959 and 1974) has bearing walls; the second generation (built between 1974 and 1993) is primary engineered multistory buildings built by large government-owned construction companies; and the third generation is characterized by a return to traditional construction methods using reinforced concrete beam-column and concrete slabs with brick partitions.

Boumerdes residents are for the most part middle and upper-middle class, working in government or colleges and research institutions. Close to one quarter of the population is college-educated.

On Wednesday 21 May 2003, at 18 hours 44 minutes UTC (19h 44 local time), a destructive earthquake occurred in the provinces (wilaya) of Algiers and BOUMERDES affecting a rather densely populated region of about 3,000,000 people within 1,000 km². The magnitude of the earthquake was calculated at $M_s = 6.6$ ($M_w 6.8$). The epicenter was located at $36^{\circ}.89N - 3^{\circ}.78E$ at about 10 km offshore from the locality of Zemmouri in the province of Boumerdes about 50 km east of the capital city of Algiers.

4- The 21ST May 2003 Boumerdes Earthquake

- **Introduction:**

Northern Algeria, in which about 90% of the country's population resides, is located along the plate boundary between Eurasia and Africa. The convergence of the two major plates creates a complex system of active faults that has resulted in a number of moderated to strong earthquakes in the region.

“Since 28 January 1716, when the city of Blida was destroyed killing more than 20000 people, there have been more than one hundred recorded damaging earthquakes. All of these have been in the area north of the Atlas mountain range and plateau, and most have been in the region west of the city of Algiers. The names recur of some towns and cities having been damaged: Oued Fodda, Ténès, Cherchell, Blida, Oran, and Mascara. There are six references to earthquakes and tremors having affected Orléansville, the former name of El Asnam, between its foundation in 1843 and the 1954 R6.4 and R6.2 earthquakes on consecutive days. More than 1200 people were killed, 5000 injured, and 2000 houses and huts (*ghourbis*) in the city and neighboring villages were destroyed (Rothé 1954; Lewis ⁴², 1982)”⁴³.

This table ** will show number of the most earthquakes that struck Algeria in previous years:

Earthquake place	Date	Magnitude	Dead	Injured	Homeless	Structures destroyed
Blida	1716	-	20000	-	-	-
Oran	1790	-	3000	-	-	-
Blida	1825	-	7000	-	-	-
Orléansville	9September	R 6.7	1400	14000	300000	
1965	-	-	-	-	-	-
1973	-	-	-	-	-	-
Al Asnam	October1980	R7.3	5000	20000	120000	7000
Constantine	Octobre1985	R6.0	5	300	-	-
Tipaza	October1989	R 5.6	35	700	50000	4095
Mascara	August1994	R5.6	172	292	10000	751
Temouchent	August 1999	R5.5	25	174	25000	600
Boumerdes	23 May 2003	R6.8	2287	11000	100000	19000

Table 1: Number of famous earthquakes that struck Algeria

- **21st May 2003 Boumerdes earthquake a geoseismology review:**

Boumerdes is the capital city of Boumerdes Province in Algeria. It is located on the Mediterranean Sea. It had a population of 15,000 in 1987 and 28,500 in 1998.

Boumerdes is a seaside city located in the north of Algeria about 50 km east of Algiers. Its previous name, during French occupation of Algeria, was **Rocher Noir**, translated from French as *Black Rock*.⁴⁴

(Childers, 1989). The two-way asymmetrical model uses research to develop messages that are likely to persuade strategic publics to behave as the organization wants (Madere, 2002). Therefore, communication within this model is viewed as persuasive and manipulative.”³⁸

▪ **Two-way symmetrical model:**

This model is “based on the ideal of mutual understanding. It is truly two-way, taking the form of a kind of dialogue between the organization and the public; both parties are capable of being persuaded to modify their attitudes or behavior as a result of the public relations activity. Edward Bernays was a leading proponent of this model, as are the academics and professional bodies of today.”³⁹ “ The concept of symmetry indicates that public relations should represent the environment to the organization and not just the organization to the environment (Leisinger, 1991)... the two-way symmetric help the organization to cooperate with and adapt to the environment... the purpose of the two-way symmetric model is to develop ‘win-win’ solutions to avoid conflicts between organizations and publics (Carpenter)... the two way symmetric model uses communication to manage conflict with strategic public (Madere,2002). In sum, the two-way symmetric model attempts to achieve mutually satisfying relations between an organization and its publics.”⁴⁰

Characteristic	Model			
	Press agency/publicity	Public information	Two-way asymmetric	Two-way symmetric
Purpose	Propaganda	Dissemination of information	Scientific persuasion	Mutual understanding
Nature of communication	one-way; truth not essential	one-way; truth important	two-way; imbalanced effects	two-way; balanced effects
Communication model	Source—receiver	Source—receiver	Source—receiver—source (feedback)	Group—group
Nature of research	Little; ‘counting the house’	Little; readability, readership	Formative; evaluates attitudes	Formative; evaluates understanding
Leading figures	P.T. Barnum	Ivy Lee	Edward L. Bernays	Bernays, educators, professional leaders
Where practised now	Sports, theatre, product promotion	Government, non-profit organisations, business	Competitive business, agencies	Regulated business, agencies
Organisations practising now (estimated)	15 per cent	50 per cent	20 per cent	15 per cent

Table 4: The Public relations models

So the four PR models are divided into two categories: (a) **One way communication:** which is press agency and public information. The differences between the two are found by examining the manner in which the communication is delivered. The first one is linked to propaganda. The second is to disseminate information but the two models have a persuasive purpose. (b) **Two way communication:** which is two-way asymmetric and two-way symmetric. The first one is gathering information from publics to manipulate and control them while the second use negotiation with the public and PR play the role of mediator.⁴¹

The classification was based on “value, goals and behaviors held by organizations when they practice public relations (Grunig & Grunig, 1989). Dozier, Grunig, and Grunig (1995) stated that these models explain the values and a pattern of behaviors (practices) that communication departments use to deal with publics”³¹.

- **Press agency model:**

“The goal of press agency/ or publicity is propaganda”³² and communication is one way from sender to receiver. This model allows for economy with the truth or half-true information. The most famous exponent is Phineas Barnum. This model is still widely practiced in sports, theater and product promotion and accounts for about 15 per cent of public relations activity nowadays. Those using it have something to promote or sell”³³. “Grunig described the purpose of the press agency model is getting favorable publicity for an organization in any way possible. The major job for practitioners in these organizations is to acquire attention in the media for their organizations”³⁴.

- **Public information model:**

This model is “used to disseminate information to one or more publics. It is one-way, from sender to receiver, but truth is important. The leading historical figure for this model is Ivy Lee. It is estimated that this model is the most widely used today, by perhaps 50 per cent of organizations, primarily government (local and national), non-commercial organizations of all kinds, and business in general. They use press releases, leaflets, reports, guides, fact-packs, videos and exhibitions to tell their publics about their existence or functions”³⁵. “Practitioners in this model act as journalist, whose job is to report objective information about the organization (Grunig & Hunt). They also produce various informational pamphlets, magazines consumer guidebooks, fact sheets, films, and videotapes that are all designed to inform publics about the organization (Grunig & Hunt). In both one-way model, the purpose of the communication is persuasive and public relations practitioners who are responsible for disseminating the information serve as an advocate for the organization (Carpenter, 2005)”³⁶.

- **Two-way asymmetric model:**

This model “uses scientific persuasion, as propounded by Edward Bernays. Communication is two-way, from sender to receiver and with feedback from the receiver, but the power lies with the sender, whose intention is to persuade the receiver to accept and support the sender organization. The purpose of the feedback they receive is solely to help organizations target their messages in a way acceptable to their publics”³⁷. The concept of asymmetry implies that public relations attempts only to change public attitudes and behaviors rather than having the organization change due to public attitudes and behaviors

3- Public Relations:

Public relations has changed and progressed from the traditional PR as “production of messages, campaigns, and mass media effects on audiences (Bruning and Ledingham 2000; Bruning and Ledingham 1998)”²³ to a professional PR that deal with all kinds of communication between an organization and its publics in all fields such as politics, economics, social and culture...etc.

- **Defining Public relations:**

Edward Bernays said “Public relations is a management function involving in tabulating public attitudes, defining the policies, procedures and interest of an organization followed by implementation a program of action to earn public understanding and acceptance”²⁴. Others define PR as a tool of managing communication between organizations and their publics; they said “PR helps an organization and its publics to adapt mutually to each other”²⁵. “James E. Grunig and Todd Hunt defined “Public relations as the management of communication between an organization and its public”²⁶. Some think that PR is “the art and science of getting along well with other people”²⁷, Public relations is also an organization’s efforts to win the co-operation of groups of people: public relations helps organizations effectively interact and communicate with their key publics”²⁸ while Cutlip, Center, and Broom (1994) said PR has an influential role on public opinion they saw that: “Public relations is an effort to influence opinions through good character and responsible performance based upon mutual satisfactory two- way communication”²⁹. Many definitions discussed many PR roles even organization reputations, this group think that: “Public relations is about reputation-the result of what you do, what you say and what others say about you. Public relations practice is the discipline which looks after reputation- with the aim of earning understanding and support, and influencing opinion and behavior. It is the planned and sustained effort to establish and maintain goodwill and mutual understanding between an organization and its public”³⁰.

So, as a summary, *public relation is all the communicational strategies used by an organization to influence its public opinion, earning their support and mutual understanding in aim to realize their goal and defend their reputation or their organization image.*

- **Public relations Models:**

Grunig and Hunt (1984) discussed the historical development* of PR and they proposed four models of PR: **press agency** (has existed since the mid- 19th century), the second model **public information** (begin in the early 20th century), the third model of PR **two-way asymmetrical** (came out during the First World War), the fourth model is the **two-way symmetrical**.

and practice their activities in a complex environment that affect and be affected by organizations.

- **Environment:**

The environment studies begin in an ecological field and shifted to other studies; ecologists defined five levels of environment: “*Organism, population, communities, ecosystem, biosphere*, and organism means one individual animal. Population is the group of the organism. Community is the group of animal and the other animals that live near it and other biotic things that live near it [biotic means living thing]. Ecosystem means the group of the animals and the other animals that live near it and the abiotic things [abiotic means nonliving thing]. Biosphere means the area of the world it lives in.”¹⁹ Environment is “the circumstances or conditions that surround one; surrounding”²⁰ that’s means “An environment is what surrounds a thing or an item. The environment is the surrounding. It could be a physical element - physical environment that includes the built environment, natural environment - air conditions, water, land, atmosphere etc or it could be human environment - people surrounding the item or thing. This is also known as the social environment and includes elements like the spiritual environment, emotional environment, home, family etc.”²¹ Environment is also the “circumstances influences, stresses, competitive, cultural, demographic, economic, natural, political, regulatory and technological factors (called environment factors) that effect the survival operations and growth of an organization. In summary, environment is “total of all surrounding of a living organism, including natural forces and other living things, which provide conditions for development and growth as well as of danger and damage”²²

According to Business Dictionary, environment is divided into internal/external environment:

- **Internal environment:**

Internal environment is all the conditions, entities, events and factors within an organization which influence its activities and choices, particularly the behavior of the employee. Factors that are frequently considered part of the internal environment include the organization’s mission statement, leadership, style and its organizational culture.

- **External environment:**

External environment is all the conditions, entities, events and factors surrounding an organization which influence its activities, choices and determine its opportunities and risks.

So, environment is all the physical and moral factors or activities that affect inside and outside the organization whether positively or negatively.

- **Organization:**

An organization in its simplest form is a person or group of people intentionally organized to accomplish an overall, common goal or set of goals. Business organizations can range in size from one person to tens of thousands.

Daft said that organizations are social entities that are goal-oriented; are designed as deliberately structured and coordinated activity system, and are linked to the external environment. “An organization is a social arrangement which pursues collective goals, controls its own performance, and has a boundary separating it from its environment”¹⁴. In the French dictionary of communication they defined organization as “an economical unit of producing products or services”¹⁵.

In the online business dictionary organization is also “Social unit of people, systematically arranged and managed to meet a need or to pursue collective goals on a continuing basis. All organizations have a management structure that determines relationships and authority out defined tasks between functions and positions, and subdivides and delegates roles, responsibilities, to carry. Organizations are open systems in that they affect and are affected by the environment beyond their boundaries”¹⁶. An organization operates according to an overall purpose, or mission, and to overall values, or priorities in the nature of how they carry out their activities. These values are the personality, or culture, of the organization. Members of the organization often have some image in their minds about how the organization should be working, how it should appear when things are going well. So the organization image is its reputation, for that Organization usually follows several approaches to reach their goals. Organizations have also major subsystems, such as departments, programs, divisions, teams, etc. Each of these subsystems has a way of doing things to, along with other subsystems; achieve the overall goals of the organization. Often, these systems and processes are defined by plans, policies and procedures. Organizations have feedback comes from its environment such as employees who carry out processes in the organization, customers/clients using the products and services, etc. Feedback also comes from the larger environment of the organization, e.g., influences from government, society, economics, and technologies.”¹⁷

The definition of organization in public relations was defined according to the relationship between organization and its publics¹⁸.

In sum, organization is a social, economical, political... units ruled by people who have common goals; they use well studied strategies to realize them. All this are gathered in determined boundaries (building or other moral boundaries). These organizations live

Sperber and Wilson (La Pertinence, Communication et cognition, Paris, éditions de Minuit, 1989) according to codes model they define communication as coding and decoding messages⁷.

The dictionary mentioned that in organization communication are the entire actions to give a good image for the society by using different techniques of communication such as: public relations, press relations, publicity, product packaging, ext...⁸.

Seeger, Sellnow and Ulmer define communication throw crisis and say: "Communication is an ongoing process that enables organizations to monitor their environments before and during crisis, to understand and respond appropriately, to construct a consistent interpretation, and to resolve the crisis and reestablish order. ... Crises take many forms, yet communication is the common thread among these forms. If an organization is faced with a false, destructive rumor, accurate communication by the organization is essential. During natural disasters, communication is essential in coordinating recovery."⁹

- **3.1.2 Internal and External Communication:**

- **Internal communication:**

In the Public Relations Encyclopedia "internal communication PR directed to and among employees in an organization"¹⁰ while the "internal publics are groups of people inside the organization, supervisors, administrative assistants, clerks, and other staff members"¹¹ and "the internal public relations messages can be understood through comprehension of the various relationships that exist within the organization"¹².

- **External communication:**

External communication "are the entire actions of institutional, commercial and communications from an organization (firms, public administrations, association) to ameliorate its image to its public... by using: public relations, sponsorship, publicity and direct marketing"¹³.

So as we see all the definitions are focusing on the communication inside or outside the organization to define internal or external communication, this lead to think that there is a relationship between place and communication for this, ***all the communicational activities, strategies and methods used inside organizations is internal communications while all the communicational activities, strategies and methods used outside the organization is external communication.***

2- Organization and Environment:

In this part we will discuss some terminological terms about organization and environment, because they have a close relationship. Organizations live and practice its activities in an environment. So what is an organization and what is its environment?

more the complexity creates a responsibility on managing these interactions in a scientific way by dealing with it under human communication studies.

In our lives there is a term called crisis, this term is used in all sciences even in communication there is crisis communication. So *what is communication? What is internal/external communication? And how can we define crisis communications and what are their theories and strategies?*

- **Defining Communication:**

In *wiki answers*: “‘*Communication*’ has been derived from the Latin word 'communis' that means 'common'. Thus 'to communicate' means 'to make common' or 'to make known'. This act of making common and known is carried out through exchange of thoughts, ideas or the like. The exchange of thoughts and ideas can be had by gestures, signs, signals, speech or writing. People are said to be in communication when they discuss some matter, or when they talk on telephone, or when they exchange information through letters. Basically, communication is sharing information, whether in writing or orally.” Julia T. Wood defined communication as “a systemic process in which people interact with and through symbols to create and interpret meanings”⁴.

In the French encyclopedia dictionary of information and communication science the communication was defined as follows: “the actions of making relations with someone, or making something in common with a person or group of persons so, communicate is making common. Communication is also the technical way that people use to communicate.”⁵

Harold Lasswell proposed a communication model composed of five questions, who says what in which channel to whom with what effect? His model includes considerations of a variety of factors to determine the impact of a communication.



Schema 2: Lasswell communication model

Abraham Moles (Théorie structural de la communication et société, éditions Masson, Paris, 2^e édition, 1988) said that communication is the action of integrating an organism or system situated in a point R to the environment of another individual or system situated in other place or other era E, by using the common elements of knowledge.⁶

descriptions, and explanations of processes occurring in local contests... words, especially when they are organized into incidents or stories, have a concrete, vivid, meaningful flavor that often proves for more convincing to a reader—another researcher, a policy-maker, a practitioner—than pages of numbers... The great advantage of qualitative research is that it can change direction easily and refocus data collection for the next field trip. Conceptual frameworks are simply the current version of the researcher's map of the territory.”¹ In qualitative research “an important step... is the development of a rich, theoretical framework... The use of theory, in doing case studies, is not only an immense aid in designing the appropriate research design data collection, but also became the main vehicle for generalizing the results of the case study.”²

My study is a qualitative study based on previous case studies literature review to support and develop my theoretical view about PR models and their role in natural crisis, which is The 21 May Boumerdes earthquake (North of Algeria).

III. Data collection:

Unlike typical quantitative research procedures, case study data “are not collected using structured, predetermined, formal, and specific methods that follow a detailed plan of operation. Data are instead collected using a more informal design that is flexible and evolves during the data collection process. Change in data gathering procedures, said Miles and Huberman, are expected during the course of most case studies.”³

This study, as many other case studies, used theoretical propositions to provide an initial structure for gathering data. These propositions provided a structure for the study and a common framework for both case study sites. The theoretical framework for this study is the effective public relations theory, communication theory.

This research is a qualitative study; it is totally based on previous literature (academic papers, books, previous master and doctoral thesis, daily newspapers, and websites etc....). I choose a famous Algerian news paper called “SAWT AL AHRAR” which means “voice of freemen”; there was no need for multiple newspaper sources, because I was searching informational news, not these about opinions and I used two numbers of “El Djeich” magazine, the official magazine published by the Ministry of Defense.

IV. Literature review:

1- Communication:

This complex world with all its components: humans, animals, plants, buildings, technologies ... etc, are all connected, and by interaction they create *communication*. This communication becomes more complex with the development of the human relations, technologies and the variety of environment that have impact on organizations. More and

I. Introduction:

Surviving, this short and strong word is the aim and goal of life for any organism, people, organizations or other real or virtual organism. They seek to survive within a complex environment that includes interactions and relations between many units in many fields.

Crisis is a small word but represents a threat to the surviving of an organization. Crises are dramatic change, usually for worse. It may be a disaster, an event which involves loss of life or extensive damage to property, or it may be a situation when an organization finds itself under unwelcome scrutiny because of its behaviors or that of its staff. A crisis may occur as a result of an accident or act of GOD.

Organizations always pretends crisis and try to find pre-solutions by planning and learning from previous crises. Yes, crises are pretended but it is difficult to know the exact time, especially when it is natural disasters.

Volcanoes, tsunamis, landlines, floods, volcanic eruptions, tropical storms and earthquakes are natural crisis often causes threats to the organization such as the Boumerdes earthquake, the second largest earthquake recorded in central Algeria since 1716. The earthquake caused a lot of damages and casualties; it put the government in critical condition, and damaged its reputation, the main shock caused the loss of 2,278 lives, injuring more than 11,450 victims, and making about 200,000 homeless and the earthquake destroyed or seriously damaged at least 128 000 houses.

The environment can be a new field in PR but it is very important to describe the communication in any company, cause the communication is internal communication (all the communication process done inside the company whether horizontal or vertical communication) or external communication (the communication process done outside the company whether with competitive companies or the public's company).

So, the natural crises as they create internal relationship between the government and its public they also create external relations between the affected state and other friendly or enemy states. These activities are seen as disaster diplomacy activities related to the crises that includes international aids and mutual condolences. These activities always realize deep relations and many purposes within public relations and international public affairs. So "What are environment levels and what are their relationships with communication? And What is the relationship between PR and Communication?"

II. Methodology:

This study uses a case study and this one is a form of a qualitative research that often uses several research methodologies to contextually examine a particular situation or phenomenon. "Qualitative data are attractive. They are a source of well-grounded, rich

Crisis: A rethinking about the relationship between Public Relations, Communication, and Environment

***KHALDI SOUAD
UNIVERSITY OF BECHAR***

Abstract:

This study looks to extract the public relations models (James Grunig) practiced in post disaster diplomacy by the Algerian government related to the 21 May 2003 BOUMERDES Earthquake and their roles in internal/external communication.

This research is based on a self interpretation (new concepts) of these terms: Public Relations models, environment levels, and internal/external communication. The interpretation of these terms was inspired from their interaction, overlap and their use in a specific relation which is disaster diplomacy activities used by government and foreign states toward affected government in an attempt to create a new framework that deal with terms within the context of the relationships and understanding them by using its approaches and tools.

As findings from this study; internal communication (all the communication strategies practiced inside the country at micro-mezzo environment levels) and external communication (communication diplomacy practiced between states in post disaster diplomacy at macro environment level).

Environment in this research is all the communicational strategies done inside and outside the country that surround and have a direct impact on state whether positive or negative.

Keywords: Public relations, Crisis, Boumerdes earthquake, environment, communication.

ملخص:

إن الهدف الأساسي من هذه الدراسة هو إيجاد مفاهيم جديدة لمصطلحات قديمة و متداولة ألا و هي العلاقات العامة، الاتصال و محيط المؤسسة، كل هذا في ظل الأزمات، و لهذا ارتأينا الاستعانة بالأزمة الطبيعية المتمثلة في زلزال بومرداس. إن أغلب الدراسات السابقة تستخدم هذه المصطلحات في ظل مفهومها الكلاسيكي و تحاول معالجة مواضيع متعددة و متباينة جدا في مضمونها دون أن يحاولوا تطويع أو تكييف المصطلحات لخدمة موضوع الدراسة، لهذا حاولنا أن نعطي مفاهيم جديدة لكل من العلاقات العامة، الاتصال و المحيط في ظل الأزمات فهل ستتغير المفاهيم أم لا؟ لهذا في نهاية الدراسة لاحظنا أن طبيعة الدراسة لها تأثير كبير في تغيير المفاهيم الإجرائية.

الكلمات المفتاحية: العلاقات العامة، الأزمات، زلزال بومرداس، المحيط، الاتصال.