# Internet's Role in Middle-East Development: Palestinian Perspective

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## Abstract

*A serious and long study of the impact of information exchange through Internetworking has been going on for sometime in the occupied Palestinian Territories. This paper is a discussion of the issue based on field study, interviews, observations and opinionated discourse modelled after Palestinian individuals who are keen about networking.*

*Considering the recent political developments in the Middle East, and the significance of information exchange in development and planning, the role of Internet in this region faces a unique and a very sensitive challenge. The Internet could be a major resource for developmental planning through mission oriented networks, empowering new users, and providing for sociological and cultural development.*

*Such role requires national and regional initiatives. The actual impact of Internet would be greatly felt if certain factors and considerations are addressed properly. These include many socio-economic, political, and of course, technical factors.*

*In this paper, these factors are discussed from both ends: the Internet point of view, and the Mid-eastern user point of view. In particular, the following are exposed:*

1. *A review of the status and initiatives in networking in the Occupied Palestinian Territories.*
2. *Presentation of an intellectual and opinionated exposure of potential networking developments, and impact of Internet on Palestinian life in all domains (educational, developmental, health, academic, cultural, sociological, economic, etc.)*
3. *Identify constraints, problems, and resources that would affect the development pragmatically, and present two scenarios which describes the worst and the best cases.*
4. *Present a possible framework or suggestion by which technical assistance could be applied to maximum advantage in providing progress on the Palestinian level, and on the regional level.*

## 1 Introduction

The recent political development in the Middle East is of course multi-faceted and diverse. Although peace is the name of such changes, other important and significant considerations are being targeted by such development. These are:

1. Economic: Serious economic considerations are being discussed between countries in the Middle East (mostly Israel & Arab countries). It is clear that any political change that is taking place now, or being planned in the immediate future, is destined to provide for increased economic relations, irrespective of the form, magnitude and partners to this change.
2. Social: More people will be interacting with each other across borders, tourism for example, is a leading joint economic venture that 'peace' is strongly advocating.
3. Cultural: Plans on emphasizing cultural considerations are being integrated in the peace process, probably for the purpose of 'breaking the ice' between Arab countries and Israel. However, such considerations will be visible in any social or economic process, if different cultural backgrounds are involved.

The ultimate purpose of political development within the framework of peace in the Middle East is to achieve a balanced and desired development in the countries involved. Such development would rely mostly on the considerations just discussed. Other more detailed objectives can be identified, but development has to contain them within these considerations. For example, technical assistance would enhance the development, but within the economic consideration probably.

However, it has been acknowledged that without information exchange, many if not all efforts of development will be doomed to fail. The exchange of information in all ways possible and on different levels, like individuals, academic, institutional, and governmental, would be the ultimate factor that will determine success of development in this sense.

It is that fact that makes the Internet, as an enormous and strong factor in information sharing and exchange, a potentially leading element in future development in the Middle East.

## 2 Role of Internet

In its effort to enable all people communicate easier and faster, the Internet has a unique opportunity to play a very significant role in the Middle East. It faces a very sensitive challenge. There are many reasons for this, the following are some of the most important ones.

1. Being non-governmental and international, it supports the users directly without any need to depend on office delays from government offices, which is most probable in the case of many countries in the Middle East.

2. Since it caters to academic institutions directly, the bringing together of many scholars and individuals in universities in the Middle East electronically, would pave the way for closer ties from bottom up: from individuals to academic institutions and consequently spread horizontally to other organizations in other domains.

3. The international body of Internet is becoming a recognized focal point to all resources that are very significant to development, planning and growth. Through access to such resources, many countries in the Middle East can utilize their expertise to draw on such resources for relatively much lower cost, and of course very faster.

4. The fact the Internet is not a commercial service provider, it has a good status in order to facilitate national economic growth nationally in each country through providing for mission-oriented networking.

5. In empowering new users, the Internet could spread the contention for better research, studies and planning through sharing of information with serious restrictions. This process in itself is very encouraging to new users, who can move electronically much easier, and therefore cross all barriers, be they physical or bureaucratic in nature.

6. One of the very direct outcomes of using the Internet is that of providing for sociological and cultural development.

As a matter of fact, many technical policy makers believe that the Internet is a useful point of reference for many of the above issues. It demonstrates the convergence of conduit, content, and computing in an integrated overlay infrastructure. It provides a testbed for understanding emerging policy issues and evaluating the broad impact of advanced information infrastructure. It also instantiates a common framework for interaction among public, private, and academic sectors, within and across national borders.

## 3 Palestinian Brief Background

The Occupied Palestinian Territories (OPT) are the lands of Palestine that remained in Arab hands after the first Arab Israeli War of 1948. These are two parts: the hilly areas to the west of the Jordan river (hence the name West Bank), and that of a small strip around Gaza City, called Gaza Strip. These lands were occupied by the Israeli Army since 1967. In 1993, Palestinian population of these areas was 1.850 million for the West Bank (including East Jerusalem which is the Arab part of Jerusalem that was captured also in 1967) and 880 thousand in Gaza strip. These figures include refugees who were displaced in 1948 from the part of Palestine on which Israel was established, and settled in camps in these areas.

Up to the early eighties, the Israeli computer companies were not encouraged by the Israeli military government to operate in the OPT. Data Communication at that time was almost impossible for common Palestinian people. Telephone service was difficult. For an ordinary person to get a telephone in his home, he has to be cleared from the military government first. That by itself took many years.

There are eight universities in the West Bank and Gaza. These are relatively small institutions of higher learning in terms of international figures. They were founded in the early seventies and later. In 1986, delegates from the computer centers of these universities then formed a team to try to investigate the connectivity issue. The main effort was then about simple dial-up lines, for file transfer, and message exchange. The sporadic closure of some of these institutions by the Israeli military caused continuous delays to any effort in trying to connect such centers, until the Palestinian Uprising, Intifada, started in December 1987, and the Israeli military closed down all universities for an indefinite period of time. The team was helpless, and all plans were aborted. As it turned out, the environment for networking was very hostile indeed in all aspects.

Meanwhile, the Israeli computer companies realized that business with the Palestinian population was feasible. permission was granted, and consequently a large increase in computer hardware supplies to institutions in the OPT took place. Gradually several local area networks were installed and point-to-point dial up started to take place between institutions and individuals. This really helped the young and enthusiastic graduates in computer science to start thinking about any way possible to introduce and increase connectivity on any level.

At present, the United Nations Development Program (UNDP) through the Program of Assistance to the Palestinian People, has decided to provide Internet connectivity to Palestinian universities. After long negotiations with the Israeli ministry of Communications, and the Hebrew University in Jerusalem, and with the help of the Israeli Universities Computer Center in Tel Aviv, UNDP became connected to Internet through the Hebrew University Computer Center with a leased line. The Palestinian universities could rely on UNDP now as a service provider, and plan on connecting to them.

Users of Internet in the Middle East would not be different in approach from the many millions across the globe. It is the expectation that may make them different. To them, the Internet is not just the Internet the rest of the world know, rather it is a splendid solution to the impediments they have. i.e.

1. Lack of information when needed,

2. Difficult, if any, of information sharing and exchange without government and other restrictions

3. Could reach different sides without the hassle of so many barriers

4. Lack of access to international resources in a fast, cheap and reliable manner.

Therefore, the Internet is called to play a special role in the Middle East that is far more reaching regarding development in all its aspects.

Setting up the necessary infrastructure is the only guarantee for the success of the Internet in this part of the world.

The Middle East user, from a Palestinian perspective, views the Internet within the following framework:

1. Bringing home the Internet through national networks and local chapters. This will increase the awareness of the academic and other sectors in the Middle East to the Internet in its fullest sense.

2. Providing for specialized resources in the Middle East. Such resources can be easily allocated, made available, and even specially created in order to facilitate the users in the Middle East and interested bodies. These resources will provide for a substantive push in development in all its aspects in the Middle East.

3. Building up a think-tank Middle East grouping that will address issues of information infrastructure and regulate all academic and technical aspects to integrate the Middle East in the international arena.

4. Providing for regional cooperation through Internet-based international activities with other regions, with emphasis on developing regions like Latin America, South East Asia, Africa, and not only the North.

# 4 Future Initiatives and Developments

There are three levels where any future initiative could belong to. They are possible developments which could consider the main scope of propriety and infrastructure. It is important to note that they do not form an exclusive path, on the contrary they could follow each other in a growth pattern, or even overlap, to produce maximum efficiency and throughput to connectivity.

## 4.1 National Level

On the national level, the Palestinians have to face a very difficult situation in deciding what connectivity links to adopt. On the face value, this looks simple and not so difficult. To an outsider from the region, it seems odd that Palestinians would seek connectivity and technical assistance from Europe or North America, while just next door, Israel, can provide all this. It is true that logic implies so. However, there are many considerations that make this not so easy. Some of those are the following:

1. Nationality: The Palestinians are Arabs, and however Arabs are divided politically, and governments alienated from each other, the people, especially Palestinians, would never imagine themselves anything else except Arabs. In other words, the most natural link or dependence on connectivity would be with Arab countries, and with Israelis or other non-Arab countries in the Middle East.

2. Security: The connectivity should be guaranteed to the Palestinians, not in terms of technical performance, rather in terms of decision making and management. A Palestinian academic should be able to control his/her connection to an international In-

ternet and information resource, without an Israeli control element, having the ability to shut down this connection or manipulate it. The human and administrative reliability should be totally in the hands of both communicating elements, without a third party.

3. Sustainability: After an initial period of time, the Palestinians should be able to sustain their connectivity, whether financially or technically. If the resources and means were not planned and made possible, any connectivity will be temporal and unreliable. This means the Palestinians have to be self-dependent, and not Israeli-dependent, even for some time or at some stage in the permanent link.

4. History: Sometimes there are things that do not change overnight, irrespective of peace agreements or Nobel prizes. A Palestinian would need time to start believing that an Israeli is not an occupying enemy anymore, but a neighbor who could provide assistance or develop cooperation with. Likewise, an Israeli would need time to start thinking of Palestinians as an independent neighboring people, and not personae non grata wishing miracles in having them disappear somehow from the land they live on.

Consequently, the best approach is to have one major Internet node in the Palestinian territories, with leased lines to most of Palestinian universities. This node should be connected internationally. However, there seems to be two options at the moment:

1. A fast dedicated line from this Palestinian node to the next international Internet node. This could be in Tel Aviv, or Cairo. In either case, getting the line passing through Israeli territory would be on the basis of providing linkage, and not providing service to the palestinian node, as a subnode of the Israeli Internet infrastructure. If through Cairo, the same applies for Egypt, where the palestinian node would be connected through rerouting through Cairo, and not as a subnode. Of course in either way, the israelis have to agree on allowing the connection to pass through Israeli territory, without having control over this connectivity. If Jordan establishes a strong link, then it would cheaper and easier to extend a line between the Palestinian and Jordanian Internet nodes. This is similar to Gaza strip and Egypt, since Israel would not have to be approached to have lines passing through long distances.

2. The other option is to establish a satellite link, that will connect the Palestinian Internet node directly through a satellite internationally. This may sound more expensive, but it does provide for full responsibility and independence of the Palestinian Internet node.

### 4.2 Regional Level

It is evident that the role of the Internet has to exist in the Middle East in a strong regional setting. Whether Israel is a part of this setting or not, the countries in the Middle east has to develop such a regional infrastructure as soon as possible. To achieve the role of Internet as described above, countries like egypt, Jordan, Palestine, Syria and the Gulf countries have to be linked strongly. Problems that may hinder this are few. Technology or money would not be the issue, it is the policy making, management and planning. The Internet management infrastructure has a lot to do in facilitating such a problem.

### 4.3 International Level

This is a co-operation arrangement in the broader sense. It could develop in different patterns. In any way, such development would naturally take shape as soon as the other two layers start to settle to a stable state in linking and infrastructure. For example special arrangements could be done with the Europeans, or the Mediterranean countries,l or other international grouping.

## 5 Recommendations and Conclusions

There may exist two scenarios in any immediate future development. The worst-case scenario is that if Middle East countries keep working individually, with no regional cooperation and planning, or keep waiting until an external element comes in to connect them. In this case serious drawbacks would occur, and information infrastructure would never materialize or take shape in a proper way. On the contrary, this will increase the isolation of these countries from the rest of the world they deal with (practically Europe and North America). Israel would remain a leading country in this aspect, and peace would never have the chance to develop at least relating to the roles of factors discussed earlier. This would increase the chances of conflicts, may be not militarily, but socially, economically and culturally. These of course are main reasons for potential enmity to renew.

The best-case scenario has a brighter side. The presence of a well planned and concerted effort in extending the Internet to the countries of the Middle East will result in an accelerated drive towards information infrastructure and planning. A grouping has to develop in order to :

1. To supervise closely the coordination in networking among these countries.

2. To act as a moderator to any academic activity about networking and information exchange among countries involved, when asked to.

3. Provide an umbrella for any coordination or cooperation between other international organizations related to academic networking and the participating members, when asked to.

Such grouping could be planned for a specific period of time, (five years for example) and could be then reviewed, or terminated. The sustainability issue should be the dominating constraint in any plan, such that member groups could depend on themselves to sustain operation after, and when, a decision to cease such grouping, is taken.

The shape and nature of such grouping could be worked out in detail among the countries involved, but without the existence of such an active structure, the Middle East will not achieve a serious and efficient step towards the building of an information infrastructure in the immediate future.