

The Role of Web-based Mapping Applications in the Educational Planning A case study Palestine

Khitam Shraim

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What is Public Participation Geographic Information Systems (PPGIS) ?

“A web-based *interactive* mapping application that utilize the *Internet* and *GIS*, is a new method for e-participation to *enable* and *strengthen* citizen participation in democratic decision-making processes”.

Main Characteristics of PPGIS:

- Utilising the Internet as a cost-effective platform for disseminating information and providing various means of communication.
- Offering GIS and other aerial photography, satellite images and 3D imagery as new dynamic methods of acquiring knowledge through visual presentation of the real world.

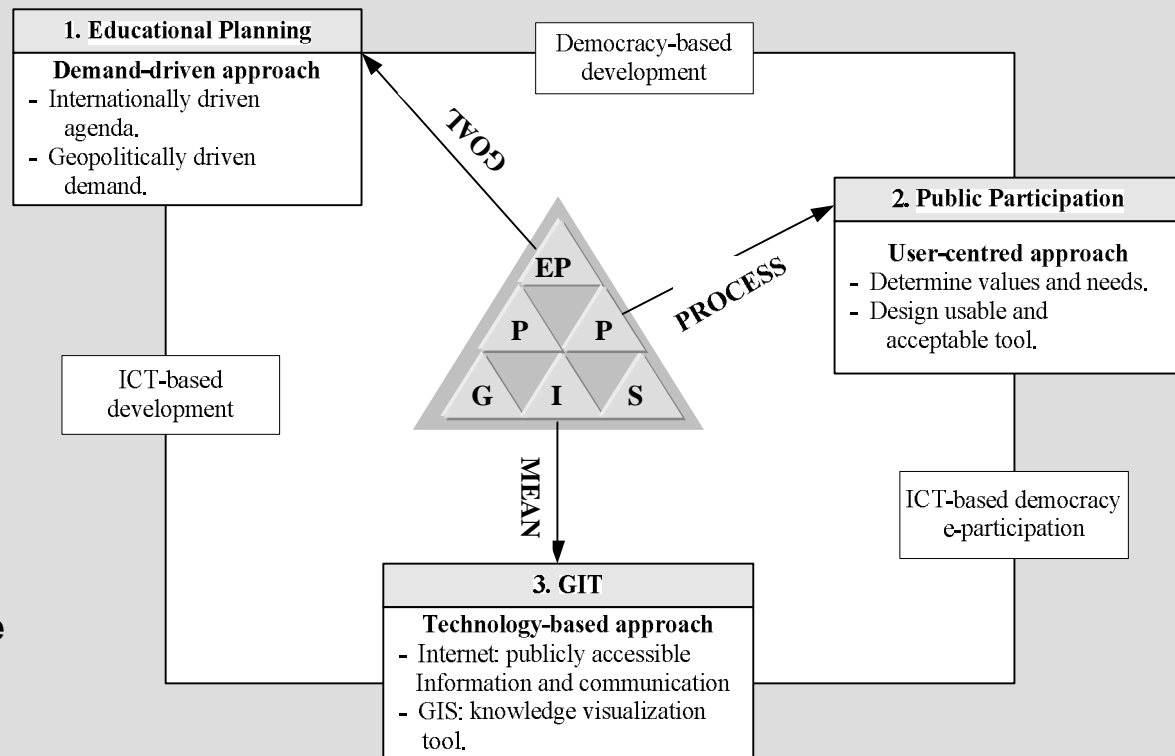
What is Educational Planning PPGIS (EPPGIS) ?

Given the continuing fragmentation of society due to the Palestinian-Israel conflict, EPPGIS prototype allows Palestinian citizens to visualize relevant and necessary information for Qalqilyah district in Palestine, as well as serving as a communication platform for exploring knowledge, expressing opinions and discussing educational issues to improve the equity, quality and accessibility of schools in pursuit of the international initiative 'Education For All'.

Conceptual framework of Educational Planning PPGIS

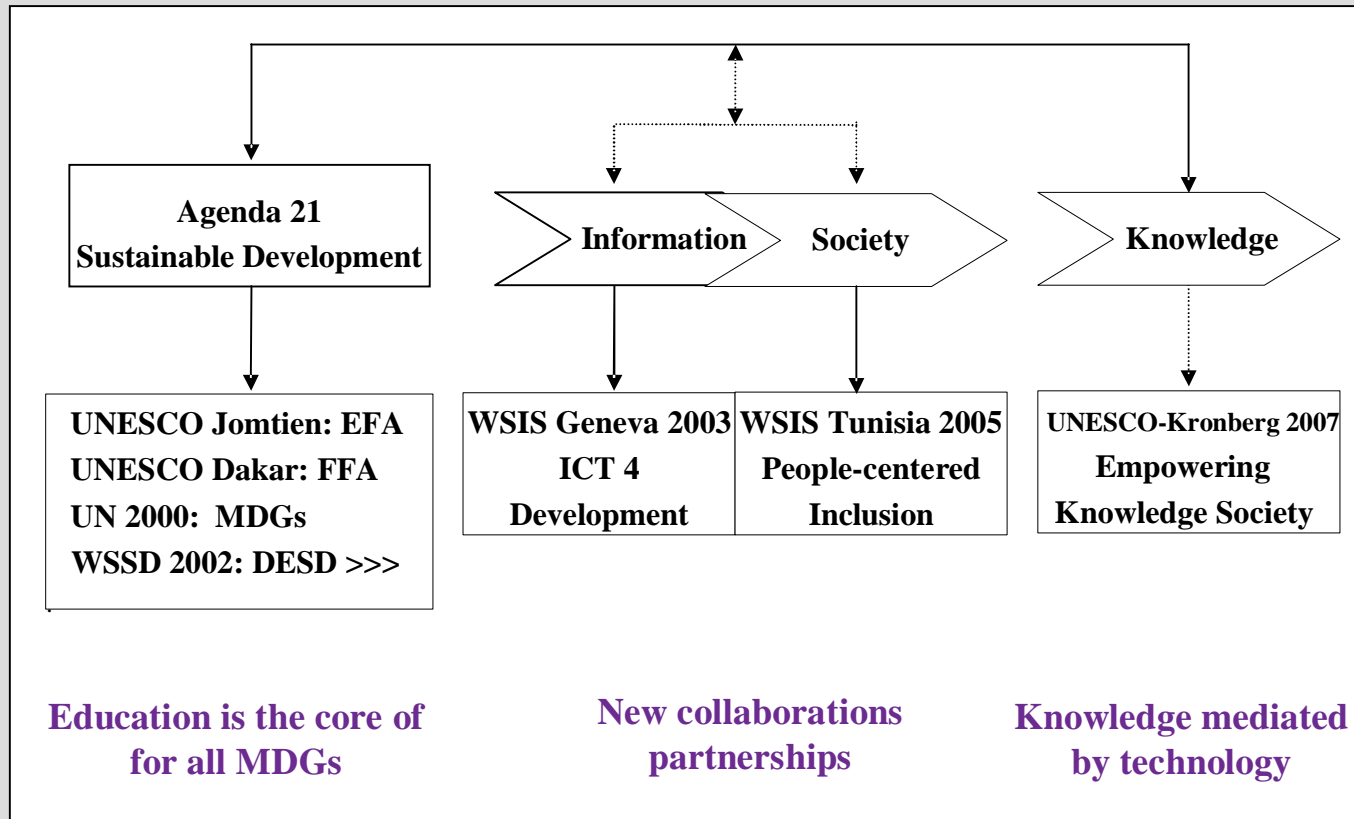
The effective deployment of ICT for development depends on:

- ∅ The **actual demand** for using the technology (Puri and Sahay, 2007).
- ∅ To match the demand side effectively, selected technologies must be **relevant to the context and appropriated by the citizens** using them (WSIS, 2003).
- ∅ Utilizing ICT for development is a '**social construct**' (Feenberg, 1999). Part of which is the design of '**means**' to achieve the desired '**ends**'; society shapes technology to their needs and interests', through **User-centred Design**.



International development agenda

The new development paradigm >>> knowledge and information society



Palestinian geopolitical driven demand

ICT 4 for Palestinians survival & life continuity



Raed Al Nadi in the check point, Nablus
5 May 2007



Palestinians passing through turnstiles at
Huwwara checkpoint, 24 Aug 2005



A class conducting in the street when their
school was closed, Hebron, 12 Jan 2005

User-centred Design

Multi-perspectives framework

Phase 1: Organization Analysis

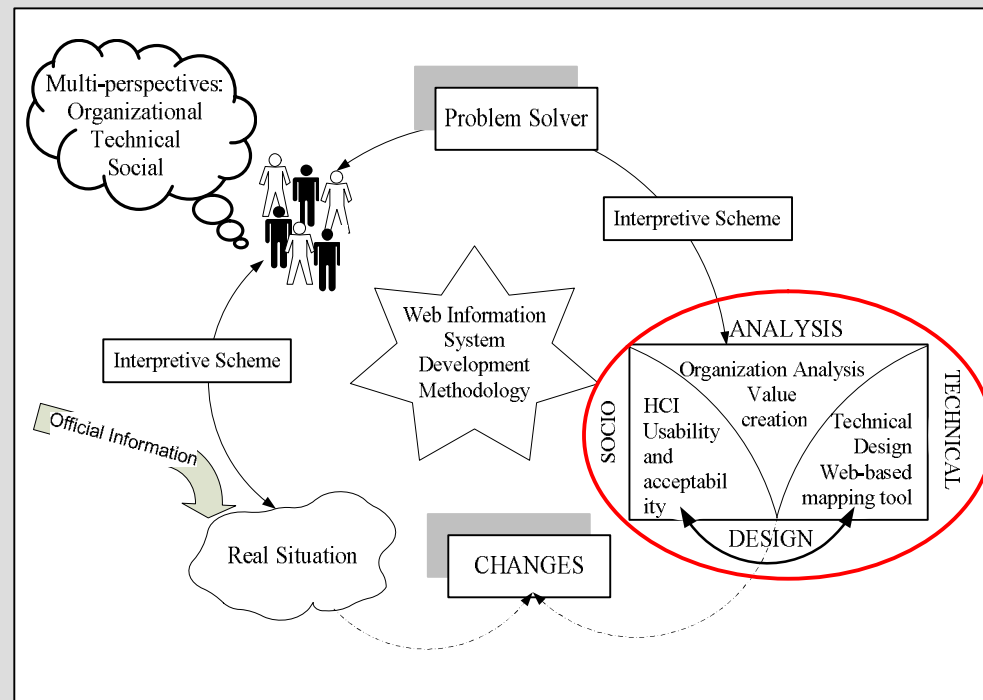
Are changes 'systematically desirable' & 'culturally feasible' ?

Phase 2: Technical Design

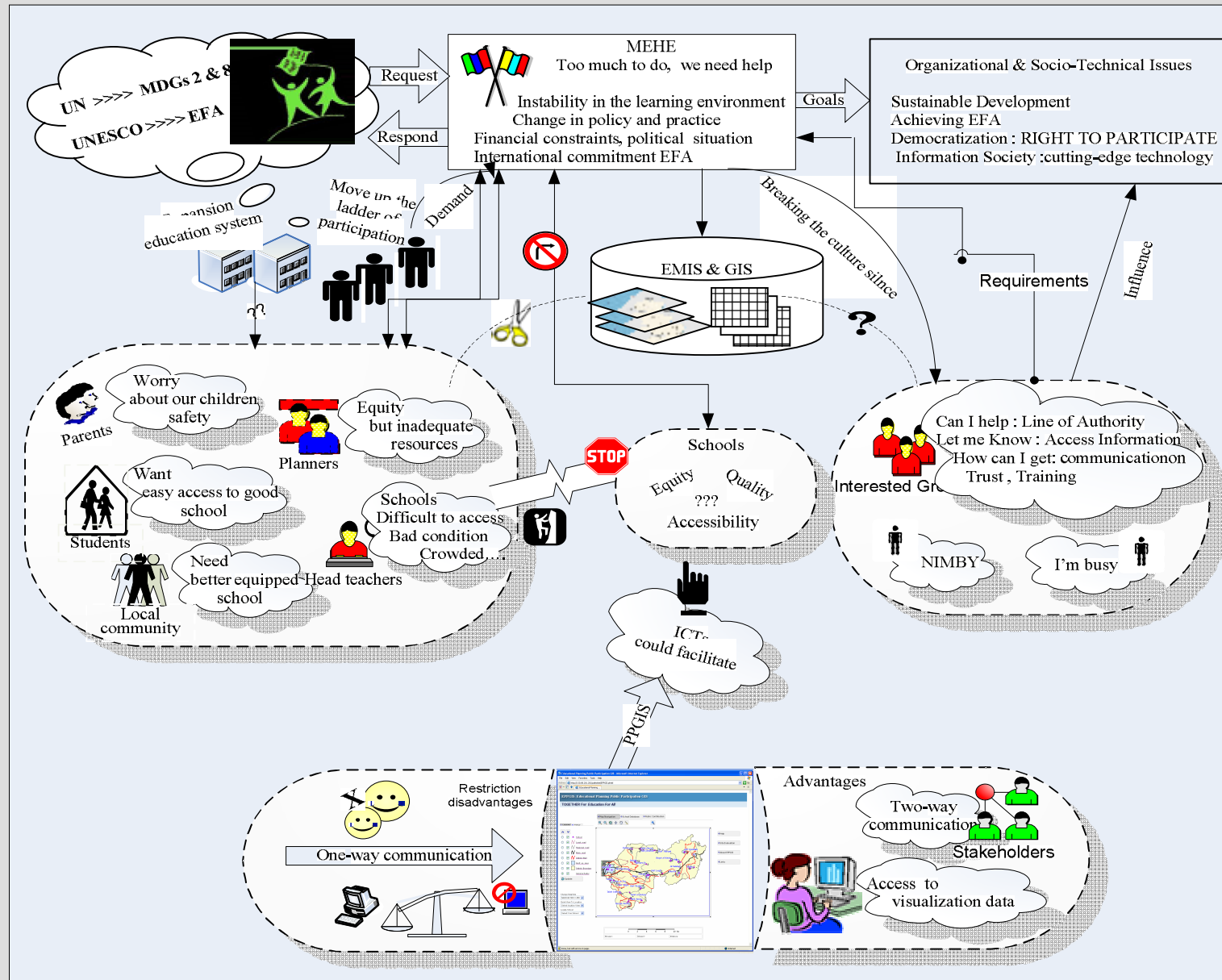
How should such a PPGIS tool be designed ?

Phase 3: HCI

Is PPGIS a usable and acceptable application?



adapted from Vidgen et al., 2002



Educational Planning Public Participation GIS prototype

The University of Manchester

EPPGIS: Qatilyah Virtual Community - Microsoft Internet Explorer

Address: http://130.88.201.201/palestine/index2.html

EPPGIS: Educational Planning Public Participation GIS

TOGETHER For Education For All

Qatilyah Virtual Community

This website allows you to participate in the school planning in a geographical location of **Qatilyah** in Palestine through providing restrictions on your physical movement.

By clicking on **Identify School** icon and then click on a school location on a map, you will be provided with educational information and ways to comments, filling polls or discussion forum. See an example of Identify icon being used to add a comment to a school ([WMV / Flash](#))

The functions of the tools are fully described in the [HELP](#) page. If you are new to using Internet mapping it is advisable to read the [HELP](#) page to use the map navigation tools and how the other EPPGIS tools work.

Help

[Enter EPPGIS](#)

This site requires [JavaScript](#) to be enabled.

Best viewed in either:

Educational Planning Public Participation GIS - Microsoft Internet Explorer

Address: http://130.88.201.201/palestine/EPPGIS.phtml

EPPGIS: Educational Planning Public Participation GIS

TOGETHER For Education For All

Map Navigation | School Database | Public Contribution

LEGEND | **TOOLS**

- School
- Local_road
- Seasonal_road
- Main_road
- District_Wall
- Built_up_area
- District_Boundary
- Qatilyah_Raster

Change Map Size: MEDIUM: 600 X 450

Quick View To Location

Select location View

Locate School

Select Your School

Add your comments

Please keep your comments relevant to the school. Inappropriate comment per school each day.

Comments

Your name (required):
Enter name

Your email address (optional):
Email

Topic:
General

Add your comments:
Comments

Add Your Comments

phpbb
creating communities

EPPGIS
Educational Planning Public Participation GIS

FAQ | Search | Memberlist | Usergroups | Register | Profile | Log in to check your private messages | Log in

The time now is Tue May 13, 2008 8:59 pm
[EPPGIS Forum Index](#) [View unanswered posts](#)

Forum	Topics	Posts	Last Post
Schools			
Accessibility to School Discussion on the accessibility of schools goes here...	2	2	Wed Sep 19, 2007 1:50 pm Khitam
Quality of School Building Discussion on the quality of the school buildings goes here...	0	0	No Posts
Equity of School Discussion on schools equity and fairness goes here...	1	1	Tue Sep 18, 2007 7:58 pm Khitam
Other Any other general discussions goes here...	0	0	No Posts

All times are GMT

Who is Online

Our users have posted a total of 3 articles
We have 3 registered users
The newest registered user is [Nasr](#)

In total there is 1 user online :: 0 Registered, 0 Hidden and 1 Guest. [[Administrator](#)] [[Moderator](#)]

Poll Questions Close

School: **Abu Ali Eyyad Sec.**

Dear Survey Respondent,

The Ministry of Education and Higher Education is interested to hear your views about the education the quality and accessibility of schools. The questionnaire is designed for you to provide feedback educational planners. Any ideas and suggestions about how we can improve the education service appreciated.

Thank you.

Step: 1 2

Accessibility to School

Q1 How do you find school site suitability?

- Very satisfactory
- Satisfactory
- Neither satisfactory or unsatisfactory
- Unsatisfactory
- Very unsatisfactory

Q2 How do you find school size?

- Enough to meet educational needs in your area
- Adequate
- Not enough
- Overcrowded

Q3 How do you find school safety?

- Very satisfactory
- Satisfactory
- Neither satisfactory or unsatisfactory
- Unsatisfactory
- Very unsatisfactory

User info

User type:

- Student
- Teacher
- Staff
- Parent
- Community member
- Others

Subject

Select subject: Accessibility to School

Next **Reset**

∅ **Usability Engineering: Technology context**

What are shortcomings & difficulties potentially affecting end users?

∅ Usability criteria : *4Es* (Effectiveness, Efficiency, Efficacy , Elegance).

∅ Methods :

- **Performance metrics:** *Effectiveness & efficiency* were measured by task completion and task error where **10** participants were observed as they performed 12 tasks considered to be the core of the site purpose .
- **Discussion group:** Two sessions was conducted to review the *efficacy and the elegance*.

∅ **Technology Acceptance Model (TAM): Individual context**

Since EPPGIS is a new technology that has not yet been introduced into the implementation environment, its early acceptance by intended users is required.

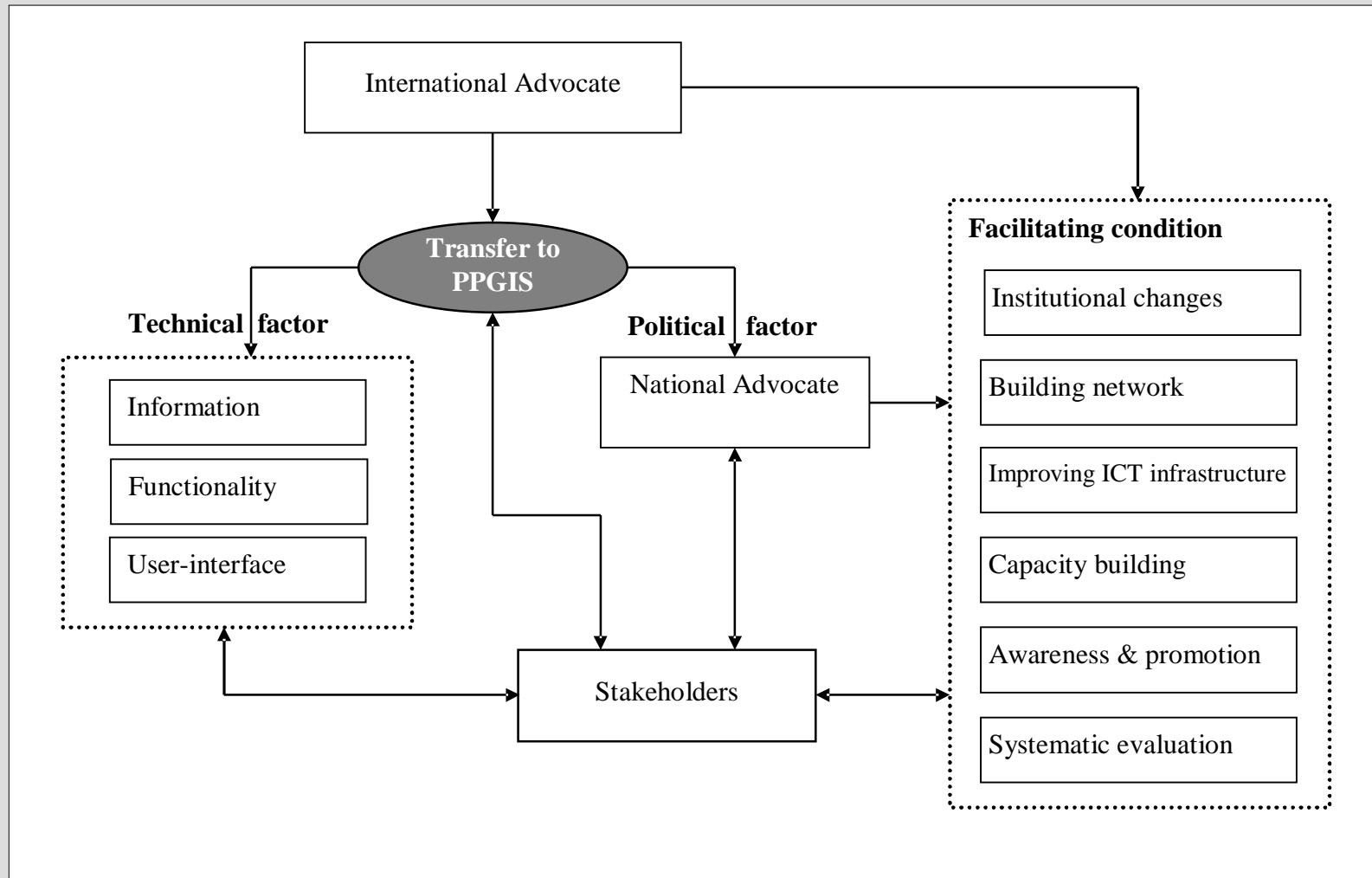
Therefore, a proposed TAM) was developed to investigate to what extent users would accept EPPGIS, and how and why they come to accept such tools

A 30-question online questionnaire was developed to investigate how users:

- *perceived information quality.*
- *perceived functionality.*
- *perceived ease of use map-based interface.*
- *perceived usefulness.*
- *social influence.*
- *facilitating conditions.*

∅ During the fieldwork to Palestine, the general atmosphere was frustrating due to the unstable political situation; only **157** responses.

Mechanism for successful implementation of PPGIS



Key issues

- PPGIS is a *demand-driven approach* appropriate to the educational planning context that meets the needs of the unique situation in Palestine rather than *technology-driven*.
- PPGIS has the potential to *enable* citizens through *visualization* if designed and implemented *properly*.
- Accessibility and connectivity and other technical issues are *temporarily* phases, emphasis should be on participation as a '*process*' rather than as a '*tool*'.
- Changes should be *citizen-centred*; multi-stakeholders should also be involved in the structural & procedural changes.

*“It does not matter if the public has the interest, it does not matter if the technology is in place –
if there is no political will, nothing will change”*