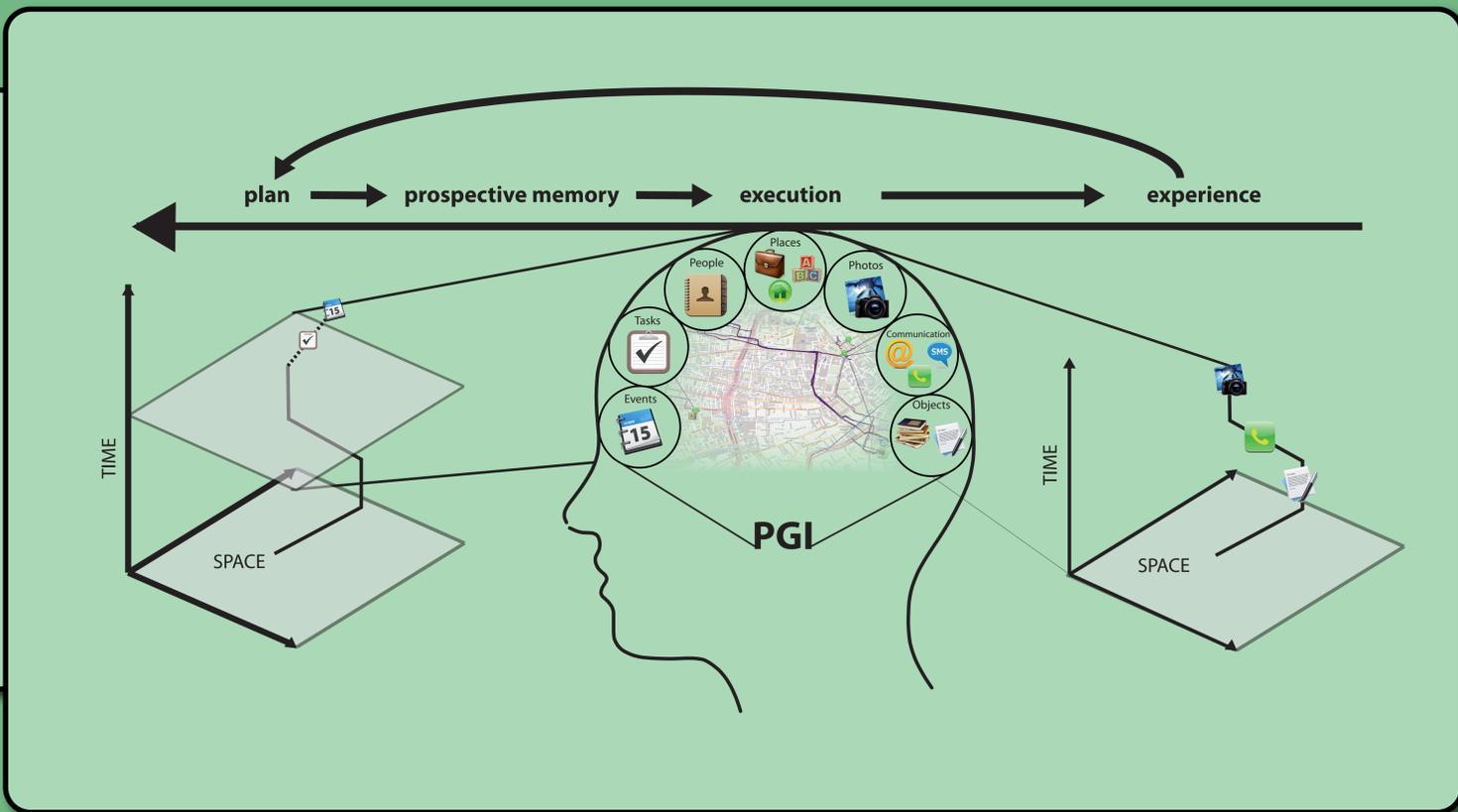


## PGI

Personal Geographic Information refers to the data we produce actively or passively by using tools like digital calendars, location aware phones, gps-cameras, etc... The data is not intended to be of use for others, as it is the case for VGI, but mostly for the user's own purposes. It can be situated in the past, present or future. Examples for PGI are calendar events, important places, contact addresses, etc...

## STP

Our space-time path (Haegstrand 1970) constitutes that we can only be at one point at one time. So each action or piece of personal information has been taken or produced along that STP. Hence it shapes our experience. At the same time the STP constraints our activities such that we can only be at places in range, given a current location and time. The STP forms the theoretic backbone of a pGIS.



## tools



Our minds are full of information about our environment and about the task and errands we have to do in it. So we use tools to help organise and manage it. These tools became increasingly electronic devices and location aware. Thus we are now able to geocode our information and put our data in geographic context.



## pGIS

As for the early stages of GIS the need for such systems was limited to professionals, since it was them who produced and processed geospatial data. Nowadays the question arises, is it time for a GIS package aimed at non expert users? A package enabling people to administrate, manage, process and analyse their own very personal data and information.

## support

**decision support**

**execution support**

A pGIS can support the user in the process of planning by providing context relevant geographic information, like weather or traffic information. It can suggest things derived from historical geographic data. Raubal et al. (2007) proposed a LBS-theory that forms the basis of such a decision support functionality.

Execution support means that the user is provided with valuable information and proactive alerts helping executing tasks and errands. It reminds the user to move towards an appointment at the right time or gives warnings about bad weather conditions, transport service disruption, etc... It tells the user about what has to be taken where and provides information necessary to perform a task, such as routes or addresses.

## analyse

**pattern recognition**

**spatial analysis**

By enabling the system to track the users locations, it can potentially analyse and parse the gps trajectory. It can monitor the users movement and therefore react to it or learn from it. Favourite places can be inferred and moving patterns stored. This will help the system to give the user the right information at the right place&time.

A pGIS can enable people to analyse their very personal spatial data and give them information about moving patterns, areas visited or unvisited. It allows to join personal data to other forms of geographic information such as statistical data. Thus questions like: How safe is my route to work, can be asked for example, by combining it to traffic-accident statistics.

## organise

**spatio-temporal indexing**

The main issues in the research field of personal information management are: finding, keeping and re-finding. A pGIS can give the user an additional possibility to store and query information. By attaching the data to the users STP it can help organising and handling personal information.