**e-Valet: An Online Personal Assistant for Conference Participants**

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**Abstract.** e-Valet is an innovative web-based application designed to support conference participants in participating to organised events. The supporting services of e-Valet aim at helping users organise and manage their time schedule, enhance the co-ordination and communication among co-participants and finally, provide a central point of organizing, storing and retrieving information related to the conference, also after the event is over. A prototype version of the e-Valet concept has been designed and developed mainly for supporting the participants of the Human-Computer Interaction International Conference series (HCI International). Nonetheless, for the design of the system, a generic approach has been followed in order to ensure easy configuration and utilisation also in the context of other organised events.

**Keywords:** Web, conference, eServices.

### 1 Introduction

Nowadays, with the evolution of technologies and sciences, thousands of conferences are organised around the world every year. The term *conference* can be used to describe any meeting of people that *confer*\(^1\) about a certain topic of interest. Such meetings often take place in formalised settings. This work focuses on the so-called academic conferences, as organised events for researchers (not always academics) to present and discuss their work. Generally, work is presented in the form of short, concise presentations and may be bundled in written form as academic papers and published as the conference proceedings. Tutorials, panel discussions, workshops and exhibitions may also be part of a large scale conference.

For anyone who has participate to such an event, it is clear that, while it can be an exceptional experience, it also a highly demanding one. Participating to a conference may involve numerous tasks on the participant’s part, such as planning the trip to the conference’s venue (making travelling and accommodation arrangements), organising his or her participation to the various parallel activities (such as several parallel presentations with speakers in separate rooms speaking at the same time), finding his or her way to the various rooms, keeping notes during the speeches and making new

\(^1\) *Confer* (cf.): meaning "compare" or "consult" (see http://en.wikipedia.org/wiki/Confer).
contacts throughout the breaks and social events. Clearly, almost anyone would like a skillful valet, like Reginald Jeeves, the famous fictional character in the stories and novels of P.G. Wodehouse, to undertake some routine tasks involved in participating to a conference, such as keeping notes, arranging appointments, keeping track of the day’s schedule and carrying around his “master’s briefcase”.

*e-Valet* is an innovative web-based application designed to act like such a valet and provide personalised support to people participating to conferences. The supporting services of *e-Valet* aim at helping users organise and manage their time schedule, enhance the co-ordination and communication among co-participants and finally, provide a central point of organizing, storing and retrieving information related to the conference, also after the event is over. The main idea is to make the proposed personalised services available at any time to conference participants through the Web. This work focuses on an early prototype of the concept developed for PCs and Laptops; nonetheless, the full concept includes a version for PDAs and SMS-based notifications so that potential users can gain increased mobility.

## 2 Overview of the *e-Valet* Prototype

A prototype version of the *e-Valet* concept has been designed and developed mainly for supporting the participants of the Human-Computer Interaction International Conference (HCII2007). It is developed in PHP (version 5.0) and utilizes a MySQL database. This first version is developed around the Conference Management System (CMS) for HCII 2007. The *e-Valet*’s database links to the CMS database to pull the conference programme information, as well as the user information. This effectively means that conference participants who have signed up to the HCII2007 CMS can use the *e-Valet* system with the same user name and password. Nonetheless, for the design of the system, a generic approach has been followed in order to ensure easy configuration and utilisation also in the context of other organised events. The support offered by *e-Valet* is divided in three main categories (see Fig.1): pre-conference assistance, onsite assistance and post-conference assistance (see “The day after…”).

The main services provided by the *e-Valet* are:

- Creating and maintaining a personal schedule
  - Dynamic browsing and searching of the conference programme.
  - Booking of specific conference events (e.g., paper presentations or sessions, tutorials, etc.) by adding them into the personal schedule following a shopping chart metaphor.
  - Notifications on last-minute changes that affect a personal schedule.
- Creating and maintaining a list of contacts (tracking contacts)
  - Maintenance of a list contacts (e.g., colleagues or friends) with the capability of informing the user where his/her contacts are at any given moment, according to their own personal schedules (if they allow this information to be delivered).
  - Exchange of messages and files between contacts.
- Keeping notes.
- Update on news and notifications from the Conference organisation.
- Locating a room or area in the premises where the Conference takes place (tracking areas).
Fig. 1. Overview of the services offered by e-Valet

3 Design and Layout

The layout of the e-Valet system mainly consists of: the horizontal menu, the side bar and the main area (see Fig.2).

The horizontal menu, which is located at the top of the page, is the system’s main mode of selection of its various services. Clicking on the appropriate icon the user is directed to the part of the system dedicated to that particular service. At the top a text box is provided as a means for quick searches.

The side menu bar is in a sense the user’s quick status and information centre. At the top of the menu, information is contained about the date and time, as well as a clear reminder, updated from the user’s personal schedule that shows a countdown to the next item in it. Further down, a list of notes the user has designated to appear on the menu are listed as note subjects. The option to view all notes, or add a new one, is also available. In addition, the side bar includes a list of contacts that is initially assembled automatically by the system (e.g., with co-authors). An icon informs the user at a glance about the status of contacts (online, busy or free further to the corresponding user’s schedule). By letting the mouse pointer hover on the name of the contact, a tooltip informs the user of the contact’s current location, based on that contact’s personal schedule. Clicking on the contact’s name will direct the user to send a message to that contact. The option to add a new contact or edit the existing ones is available. The final two sections of the side bar are shortcuts to Conference related information displayed for the user’s convenience.

In the main area, there are two sub areas: the message board and the scheduled events. The message board displays any new messages received. These will include notifications from the Conference organisers, updates on an event re-scheduled that is on the user’s personal schedule (see below), as well as messages from contacts. The scheduled events box is a list of the next upcoming events from the user’s personal
Finally, a form is available for quick schedule entry, where the user may add a personal event in the schedule (such as an appointment with a colleague).

4 Services

This section provides a brief overview of the services offered by e-Valet.

Conference Programme: The e-Valet system is connected with the database that holds all the information on the conference events, including time and location. The programme is available to the user to browse based on type of event (tutorial, parallel session etc) and by date.

Personal Scheduler: The personal schedule of every user is the major facility provided by the e-Valet system. The user is given the option to create a personal schedule based on personal interests. Such a schedule will be easier to follow than the general Conference Programme, containing only the events the user wishes to attend. The personal schedule by default contains the events the user is involved in. In the case of the HCI2007 Conference, these would be tutorials the user has bought and the papers he/she will present or has authored. The user can add to the personal schedule by locating an event of interest (through browsing or searching), selecting and then submitting it to the system. The process is the same as adding items from an
e-shop to an electronic basket or shopping cart. In this case the shop “catalogue” is the conference programme and the cart is the user’s personal schedule. The schedule can be viewed and edited at the “Personal Schedule” tab of the Schedule section of the system or at the Homepage, where the next few upcoming events on the schedule are listed. The user has the option at the same two areas (Homepage and Schedule → Personal Schedule) to add a personal event to the personal schedule, by filling in a small form with the relevant information.

**Contacts Lists:** The second major facility provided by e-Valet is the Contacts Lists. These are lists of people the user is interested in communicating and co-ordinating with during the time of the conference. Typically, they would be colleagues from the same organization visiting the conference, collaborators, such as co-authors of papers, or simply friendly acquaintances. The aim of the facility is to give every user authorised access the personal schedule information of their contacts. This means that at any moment the user will know where to find his/her colleagues, if they are busy (and for how long) or free and avoid methods such as expensive cell phone calls or e-mail that takes time to be written and has no guarantee of being read.

**Mailbox:** This is a typical web-based message exchange system. Its use is similar with any well-known e-mail system that works on the web.

**Notebook:** This section provides the user with a simple way to write notes. These serve as reminders or for keeping notes about an upcoming event or meeting. There is an option to make notes visible at every point on the side bar for easy access. These remain available (as well as every other information) even after the conference has ended, over a sensible period of time for further use.

**The “Where is?” feature:** This service allows users to locate presentation rooms, conference halls, the reception, etc., by listing maps of the Beijing International Convention Centre and directions to its locations. In addition, a map of the city of Beijing is available here.

## 5 Future Work

Further development plans for e-Valet include an interface for the administration of the underlying MySQL database. The current version has been developed around the HCII2007 Conference Management System. In order to make the system completely independent of existing databases, it has to provide a means to create and maintain a database that suits the specific needs of any conference. This database creator will be obviously geared towards the services offered by the system. Specifically, it will be designed in a step-by-step process of asking what information should be displayed by the system in relation to the conference’s program and the system’s users. These elements at the moment are dependent on the design of the HCII2007 CMS system.