

**Dipartimento di Ingegneria e Scienza dell'Informazione**

- KnowDive Group -

# Master thesis on role based user homepage

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**Revision History:**

Revision	Date	Author	Description of Changes
1.0	09.09.09	Tabin Hasan	Document created
2.0	11.09.09	Tabin Hasan	Document updated

# 1. Introduction

This document describes design requirements of UI for role based user homepage as groupware. It also stresses fundamental understanding of notion of roles in person and in group.

## 2. Master thesis

### **Title: Role based user homepage**

**Abstract:** A highly dynamic Web based configurable user homepage for users is a need for individual's representations to other people on the Web. Each person has different role in the society (e.g. a father, a research colleague, etc.) that distinguishes her/his information set presented to the targeted user group. Unlike popular social Web pages like "Facebook" and "MySpace", a person has a single account in our system with multiple roles as many s/he needs in order to communicate effectively within a desired group. This means, a person being a father uses a different custom/preconfigured information set and its presentation to his children or family members than that of being a student to his classmates. Our system saves information about persons and their roles in structured metadata. These role based homepages shall be subsumed by general homepage for the person and for both the fabric is metadata. Therefore, any change in metadata shall automatically update the homepage(s). The very essence of this work is to define the thin lines between each perceived role and design the templates and guidance for user to customize and designate her/his homepage for each role, and provide the mechanism to switch between them. The dynamics are on/off line message board, profile updates, sharable resource update and so.

**Objectives of the thesis:** The current thesis aims at:

- Defining the general configurable user homepage from where user switches to role based homepages.
- Defining the roles for users on basis of social dynamics.
- Outlining the data set and activities for each role.
- Designing templates to support representations of roles.
- Support guided customization and/or creation of new template for both general and role based homepages.
- Define metadata set to fetch and save homepage design information.
- Finally, development and implementation of role based user homepage on top of our core architecture.

**Work plan:** the effort required to deliver the current thesis is estimated as a 7 months full time activity of a master student. The thesis work plan is presented below. The delivery dates are rather indicative than compulsory, however, the student is highly encouraged to follow the proposed timeline and s/he should notify the thesis advisor whenever a deadline cannot be met. In the list below, **M** stands for "month", e.g., **M1** is the end of the first month after the thesis starting date.

- M1:** Studying the concurrent social networks and the concept of user homepage and generate report.
- M2:** Study on individual's representation as a discriminative social entity on the Web and generate report.
- M3:** Examining current system architecture (epically metadata structure for person and role) and define the new system requirements (if any) to support the design.
- M3.5:** Generate prototypes for various use cases for evaluation.
- M4:** Redefine the system requirement if necessary and generate final version of prototypes.

- M4.5:** First implementation of prototypes.  
**M5.5:** Usability evaluation for each prototype and generating evaluation report.  
**M6:** Refining the prototypes based on findings from usability evaluation.  
**M6.5:** Final implementation and integration with the core system.  
**M7:** Thesis writing.

**Requirements:** The candidate student for this thesis should meet the following requirements:

- Bachelor degree in computer science or in a related field and completion of MS course work majoring HCI.
- Must demonstrate sound knowledge in interactive design principles.
- Skill in any rapid prototyping tools (Microsoft PowerPoint is preferable)
- Excellent knowledge of XML, DOM, XHTML, DHTML, CSS, and JavaScript
- Experience with AJAX and web development
- Knowledge of features and peculiarities of modern browsers
- Experience with a client-side JavaScript framework. Experience with Dojo is a plus
- Knowledge of Visio and/or Flex for design prototyping. Knowledge of in Design and/or Photoshop is a plus