

# Combining Private and Public Features for Information Access

PhD Proposal for the MAP-i Program, 2013-14 Edition

## 1. Advisor

**Sérgio Nunes** (sergio.nunes@fe.up.pt), Senior Researcher at INESC TEC and Assistant Professor at the Department of Informatics Engineering, Faculty of Engineering (FEUP), University of Porto. <http://web.fe.up.pt/~ssn>

## 2. Description

Web search engines are central pieces in today's information ecosystem. These systems are designed to filter and rank publicly available information in response to user queries. Although most of the content available on the web is public, there is an increasingly larger part of the information published on the web that is not publicly available – e.g. personal information in social networks, private repositories shared between users, browser bookmarks, etc.

Centralized search engines, like Google or Bing, can collect information that is public (i.e. *crawlable* by their systems), but they are unable to access private information. Our vision is that this information is valuable and can be used to improve information access for users, both for private or public information needs. This will result in a shift from centralized search services to systems that combine both centralized and local components.

## 3. Research Goals

**This proposal is centered on studying and developing new techniques to improve information access by combining private information and public information.**

We can identify two complementary research goals: (1) Improve personal information retrieval using external sources of information; (2) Improve information retrieval over public resources using private information.