Disco-STEPS (Single Touch Enhanced Proactive Selector)

Problem statement

As federations grow and the number of identity providers (IdP's) gets large, the classic methods for presenting and choosing IdP's become inadequate. The Danish WAYF-federations' list of institutions is getting close to 100 entries. Any list of this size appears overwhelming and confusing, and consequently consume significant amounts of both time and mental focus - all of which distract the users, who's primary goal is to get quickly to, and use, the services.

Goal

The goal of the work presented is to:
- provide better overview and handling of long lists
- lower the number of mouse-clicks needed to get redirected to the correct IdP
- enhance the users' mental impression of 'being on the right track'
- provide the technical framework for future work on geolocation representation in
  discovery services

Credits

WAYF thanks Andreas Schuller and Janina Bierkandt at Competence Center Human-Computer Interaction at Fraunhofer Institute for Industrial Engineering IAO, Stuttgart, Germany, for providing suggestions for enhancements and comments on usability of the solution.

The present work is part of Géant3's Joint Research Activity 3, task 2: Identity federations.

Solution

Service presentation
In the upper left corner of the web page the following explanatory text i presented:
"In order to access 2011-SP please login at your institution."

As users might be surpriced by being redirected to this page, while trying to access the service (2011-SP), the logo of the service is presented in the upper right corner along with the following text: "You were directed to this page from 2011-SP".

The name of the service is written in bold type face in both places to make the name more visible to users only skimming the text on the page.

The text on the right is aligned to the right, and a line break is placed before the service name to allow for long service names and still keep the text
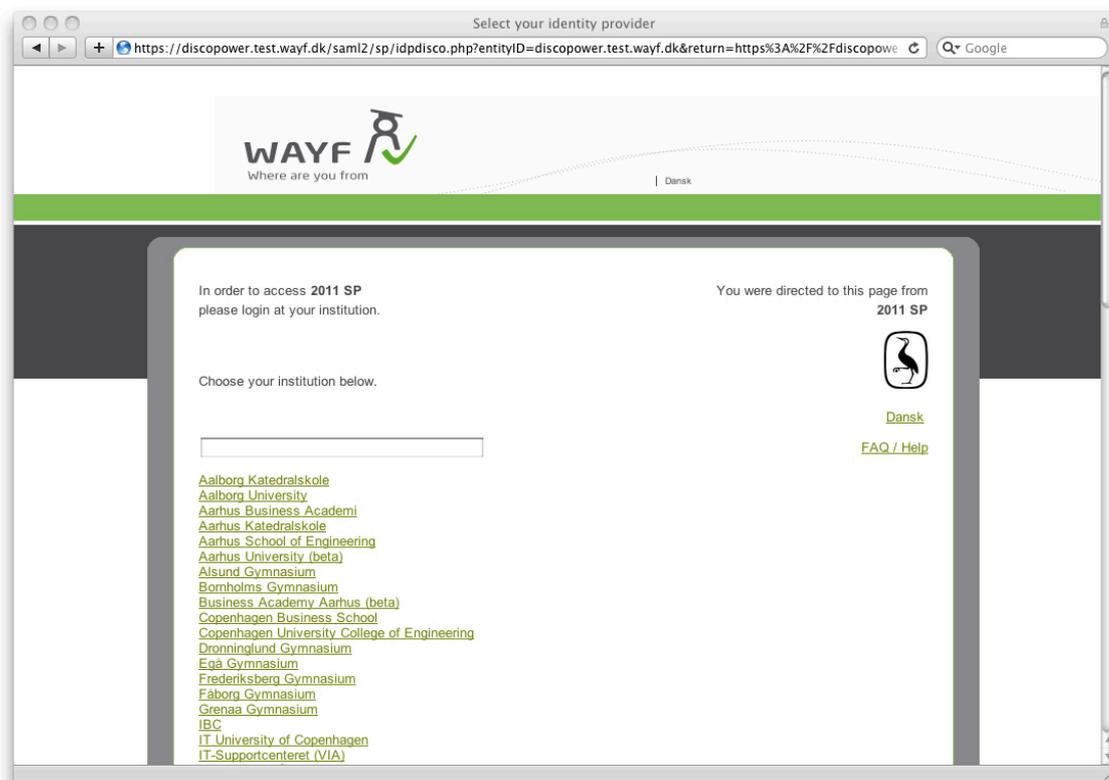

Fig. 1. Full list of IdP's presented as clickable html-links. SP name and logo shown.

Multi language support
The page supports multiple languages (in this example Danish and English) which are toggled by clicking the laguage link. In case only two laguages are available, the text of the link actively changes to the other available option, ie. 'Danish' or 'English'. Clicking the link changes both the descriptive texts and the list of IdP's which is automatically re-sorted based on the naming in the chosen language.

In WAYF's implementation two language links are present: to be consistent with the rest of the web pages published by the WAYF federation, a link has been placed at the top, above the thick, green horizontal line. As this small graphical element might not be directly associated with the IdP-list, another, larger, link is added just below the logo of the service provider.

Link to *Frequently Asked Questions (FAQ) / Help*
Placed in conjunction with the large language link, is the link to the Frequently Asked Questions (FAQ) or help page. Clicking this link opens a separate browser window or a tab, depending on the browser used, in order to let the user resume the login flow from the same state as where the link was clicked.

The list of identity providers (IdP's)
The list of IdP's is ordered alphabetically and presented as plain html (see Fig. 1). Each entry in the list is a link to an IdP's login page. When a given link is clicked, the user gets redirected to the login page without furter ado. This way a user is able to both select and get redirected with a single click - a feature that distinguishes this solution from the classical 'drop-down list'.

Search field
Above the list of IdP's is a search field which takes input focus when the page i loaded (depending on the browsers' default behaviour). This way the user may start typing right away in order to shorten the list of IdP's.
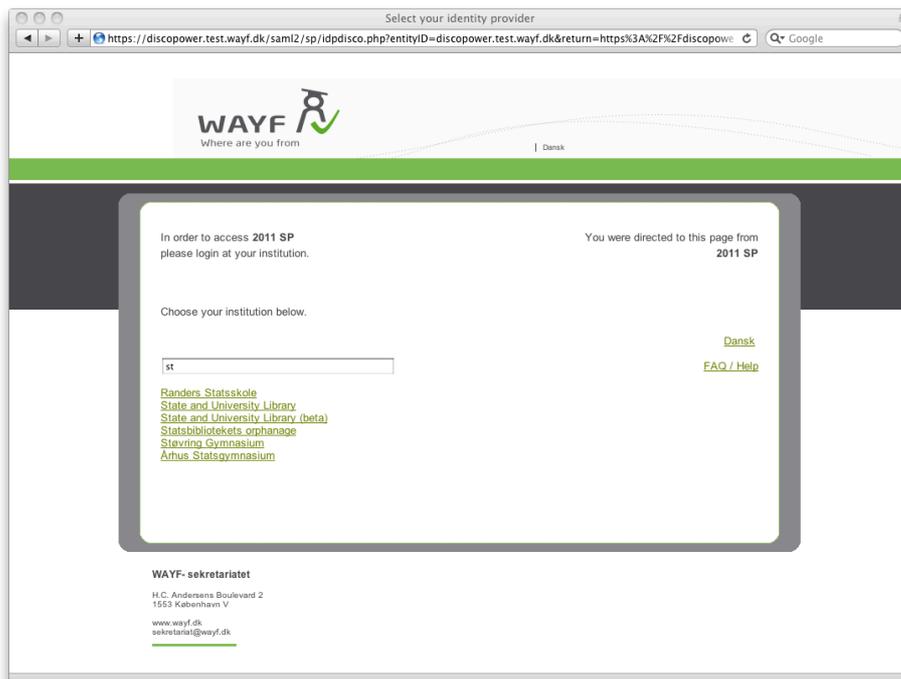

Fig. 2. Typing in the search field shortens the list while typing

The search text is split into words, each of which must be the first part of a word in the corpus (list of IdP's)(see Fig. 3). Corpus consists in WAYF's implementation of the Danish name of the IdP's as well as the English version and optionally hidden 'tags' like abreviations. An example is: Roskilde Universitet, Roskilde University, RUC. This enables seaching independant of shown language and even using well known (hidden) abreviations, nick names etc. This function will take input from geo-location services and will be further developed in the Géant3 project.
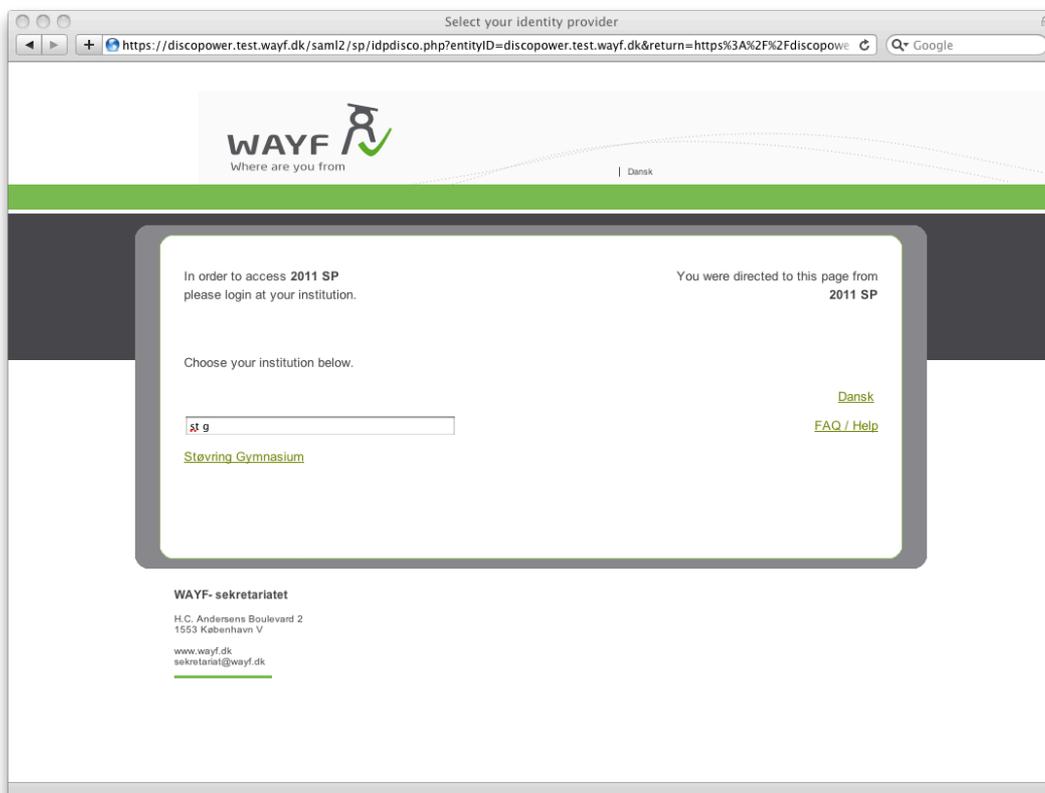

Fig. 3. Search result based on parts of corpus words

Search history
When choosing an IdP a cookie is set in the users' browser. The cookie contains information about the users' choice in order to present a short history of previously chosen IdP's for quicker, future navigation. The list may be configured to any size but is limited to three entities in WAYF's implementation. A limitation of the cookie based approach is that it will only work while using the same browser on the same machine (see Fig. 4).
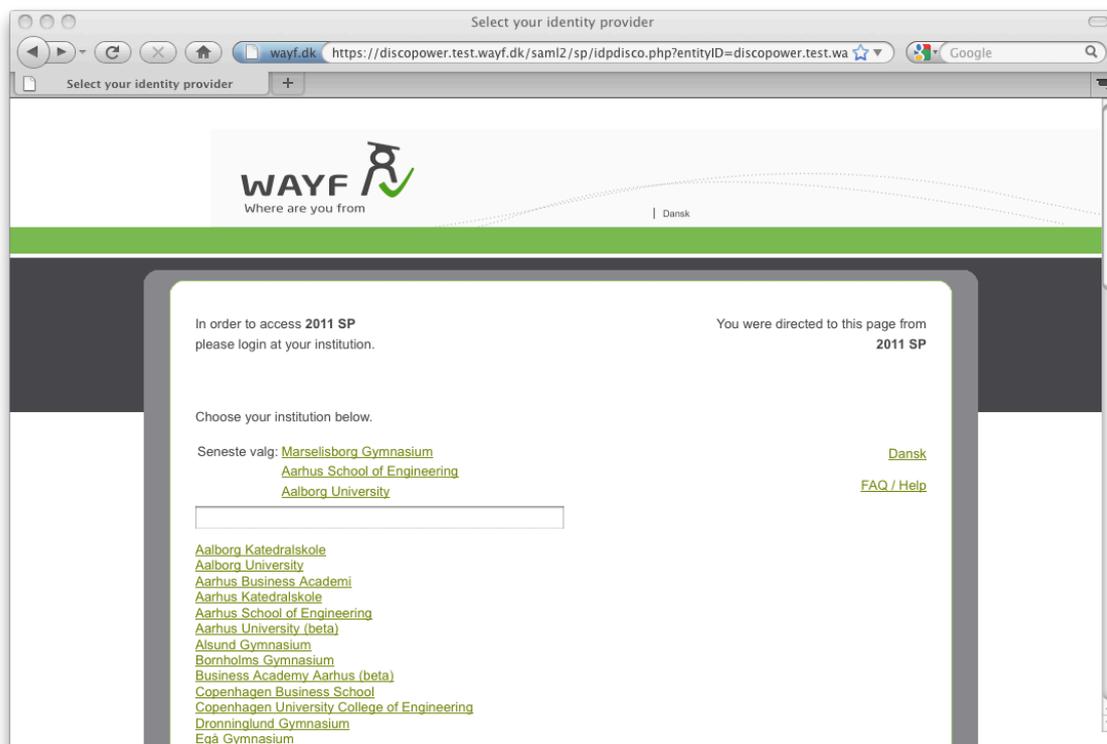

Fig. 4. Three last choices presented above search field for quick history baased navigation