ICHItool: a prototype system for ICHI development and maintenance

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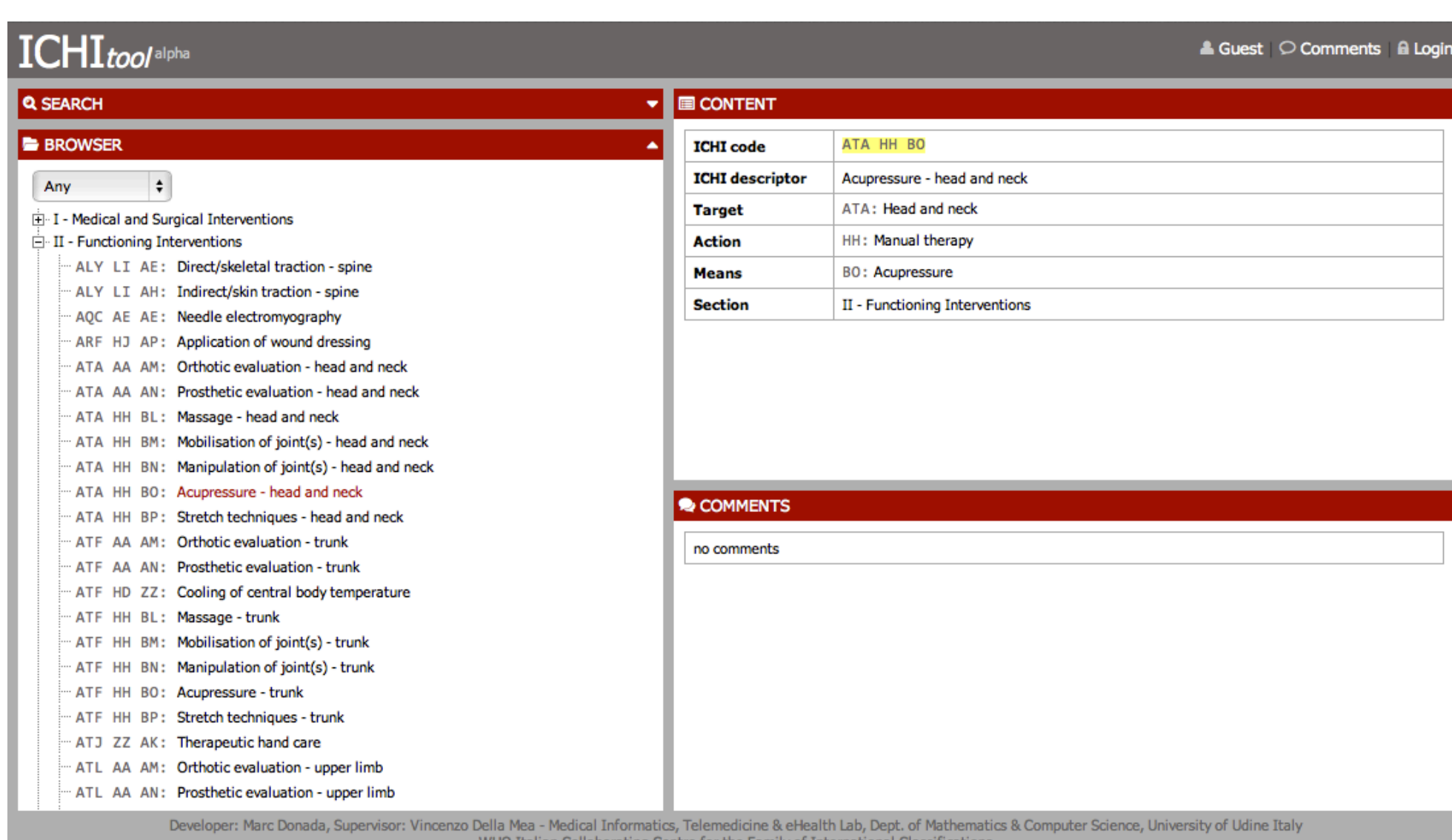[2] Australian Collaborating Center

Abstract For a modern classification, it is essential to have a web-based platform. Such a platform enables collaborative development, consistent maintenance, and easier and more effective reviewing and commenting, like those available for ICD11, ICD10 and ICF. Aim of the present poster is to describe a similar prototype platform that has been developed for ICHI too.

Introduction

For a modern classification, it is essential to have a web-based platform. Such a platform enables collaborative development, consistent maintenance, and easier and more effective reviewing and commenting. The platform should include a number of basic features such as navigation and search functionality, user comment facility, entity creation and modification, as well as advanced features including linkage to other classifications and terminologies, and a URI-based API.

This is what in the last years has been developed for ICD10 and ICF (browsers and update platforms), and later ICD11 (iCat and Revision platform) (1).

Aim of the present poster is to describe a similar prototype platform that has been developed for ICHI too.
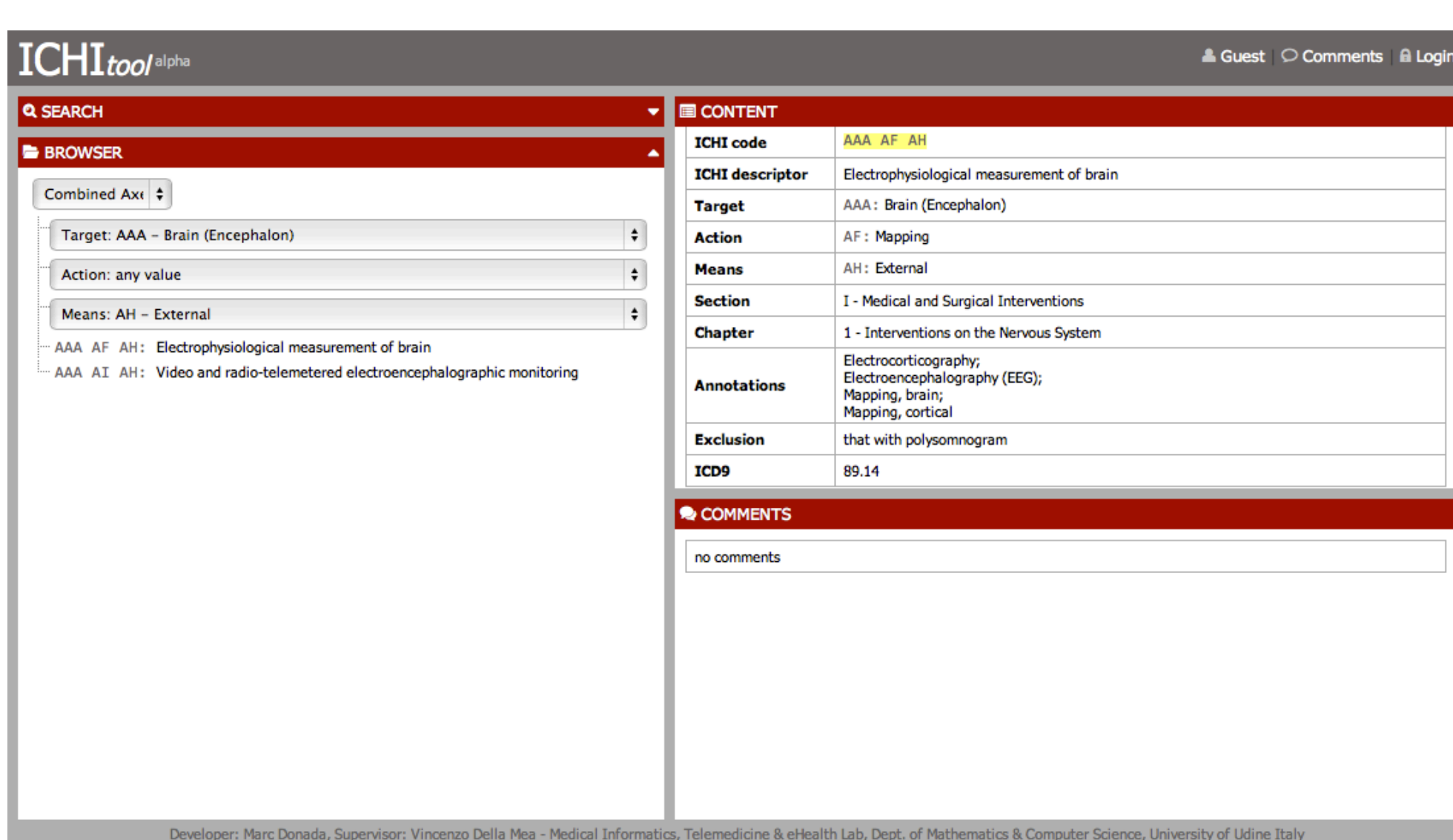

Methods & Materials

To experiment with above mentioned features in the case of ICHI, the Australian WHO-FIC Collaborating Centre developed a list of requirements for an ICHI platform, based on the already known experiences that are at the basis of ICD11.

The Italian WHO-FIC Collaborating Center translated this list into a working prototype.

Iterations have been made among development team and ICHI management, including people from the Australian and German Collaborating centres, to ensure requirements were met.
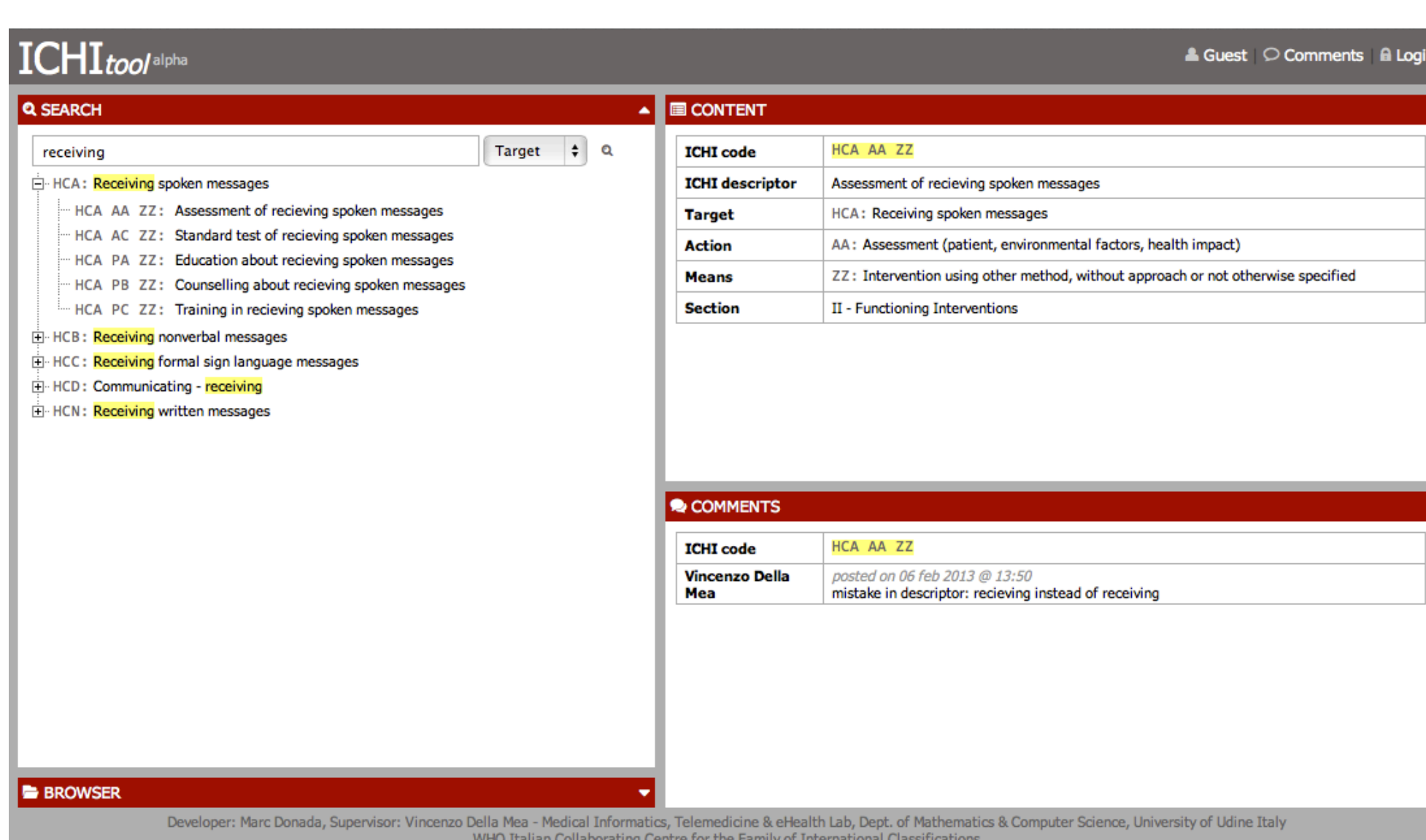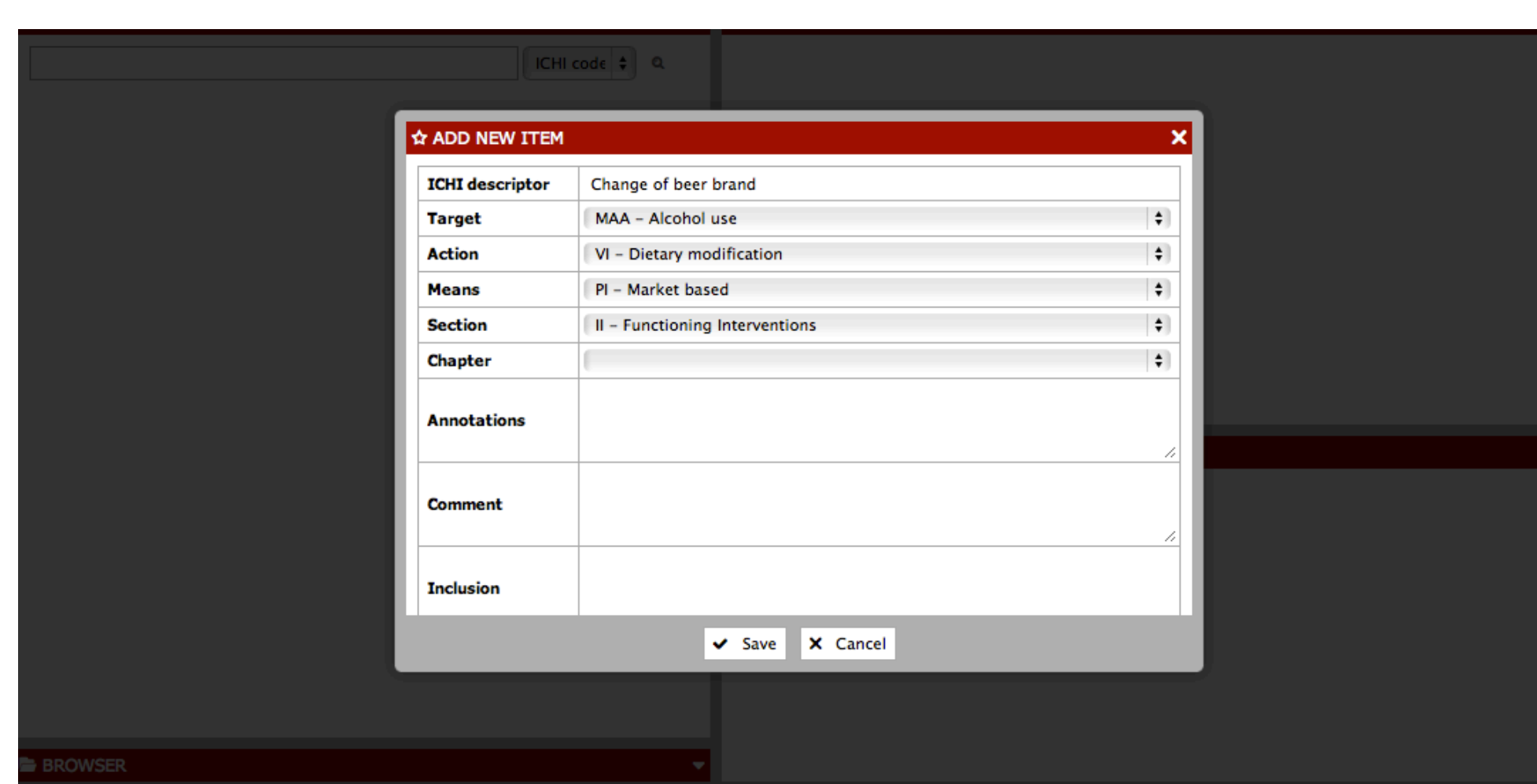

Results

The Italian Collaborating Centre has developed a prototype tool (ICHItool) designed to have the look and feel of the other WHO-FIC platforms. This has been very useful for content review and revision.

The ICHItool currently has the following features:

- Storage facility for all required information that makes up ICHI
- Content box for code titles and to have fields for definition, includes, excludes, and code also notes
- Content box for axis titles and to have fields for definition, includes, and excludes notes
- Deletion/retiring of concepts capability
- Access/password for limited users in the development period
- Ability to download files to xls or txt
- Ability to download either small sections, individual chapters or the whole of ICHI
- Accessible to reviewers to enable commenting during the revision process
- Format that will enable commenting, storage and revision of comments during the revision process.

Three user profiles access the system:

- guest users may only browse and search ICHI entities,
- registered users may also comment,
- administrators can create and modify ICHI entities.

The platform, developed using PHP and MySQL, is hosted at the Medical Informatics Lab of the University of Udine, Italy, on a Linux Web server (2).
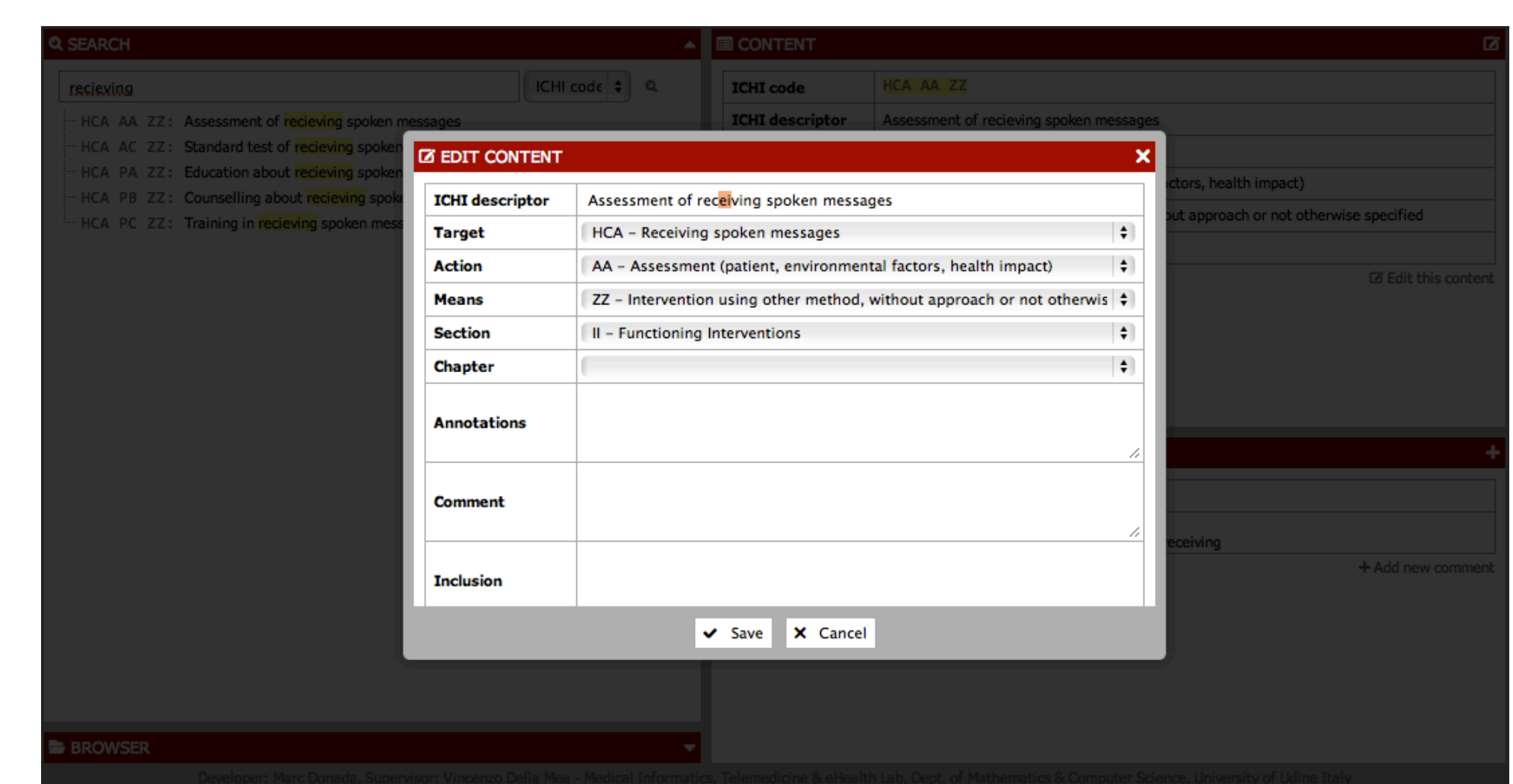
Conclusions

The presented platform is currently only a prototype, yet is usable. Additional features to be added include:

- Ability to 'attach' a comment to an entity being created/updated to provide reasons for the change
- A change history record to see the changes to a concept over time
- Ability to search includes and excludes notes and annotations, as well as code titles
- Parameter field for addition of modifiers and qualifiers applicable to specific interventions
- Ability to output to CTK Birch
- Ability for an URI API system for automated access from other software programs
- A tool to be developed to allow terminology/ontology comparison with other classifications
- A linerarisation function to permit production of various subsets.

These additional features would allow the ICHItool to act as a production platform for ICHI development. Such a platform is urgently required as the scope of ICHI expands and additional reviewers need to be accommodated (there is little prospect of capacity being available to adapt iCAT for this purpose in the short term). To date, the resources to allow ICHItool to be developed as a production platform have not been available.

References

1) Tudorache T. et al. Supporting the Collaborative Authoring of ICD-11 with WebProtégé. AMIA Annu Symp Proc. 2010 Nov 13;2010:802-6.
2) ICHItool.
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