University of HUDDERSFIELD
Inspiring tomorrow's professionals

USING XML AND SEMANTIC TECHNOLOGIES IN ASTROINFORMATICS TO MANAGE DATA

(A Doctoral Study 05/04/2018)

Guy Beech

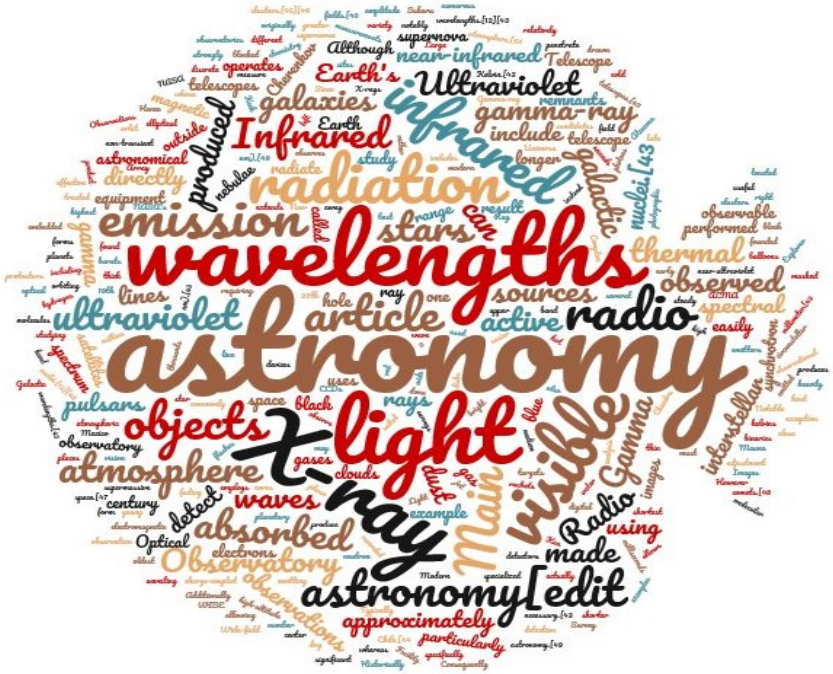
School of Computing and Engineering,
University of Huddersfield, HD1 3DH

TEF Gold Teaching Excellence Framework

HEA Global Teaching Excellence Award

Introduction

University of HUDDERSFIELD
Inspiring tomorrow's professionals



TEF Gold Teaching Excellence Framework

HEA Global Teaching Excellence Award

Aims of the research

University of HUDDERSFIELD
Inspiring tomorrow's professionals

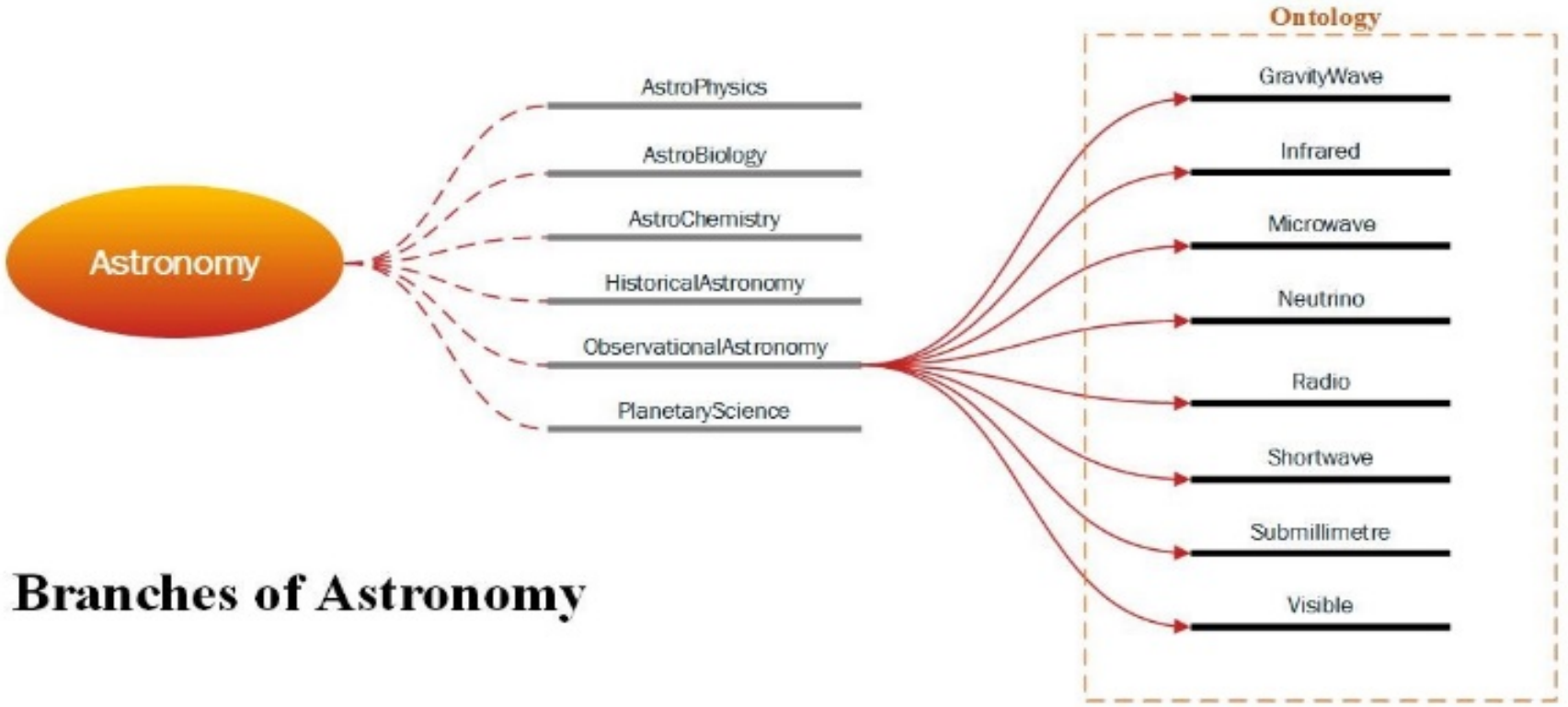
To develop contemporary data management solutions by:

- Defining an XMLSchema
- Defining ontologies
- Developing useful tools

The Logical Model

University of HUDDERSFIELD
Inspiring tomorrow's professionals

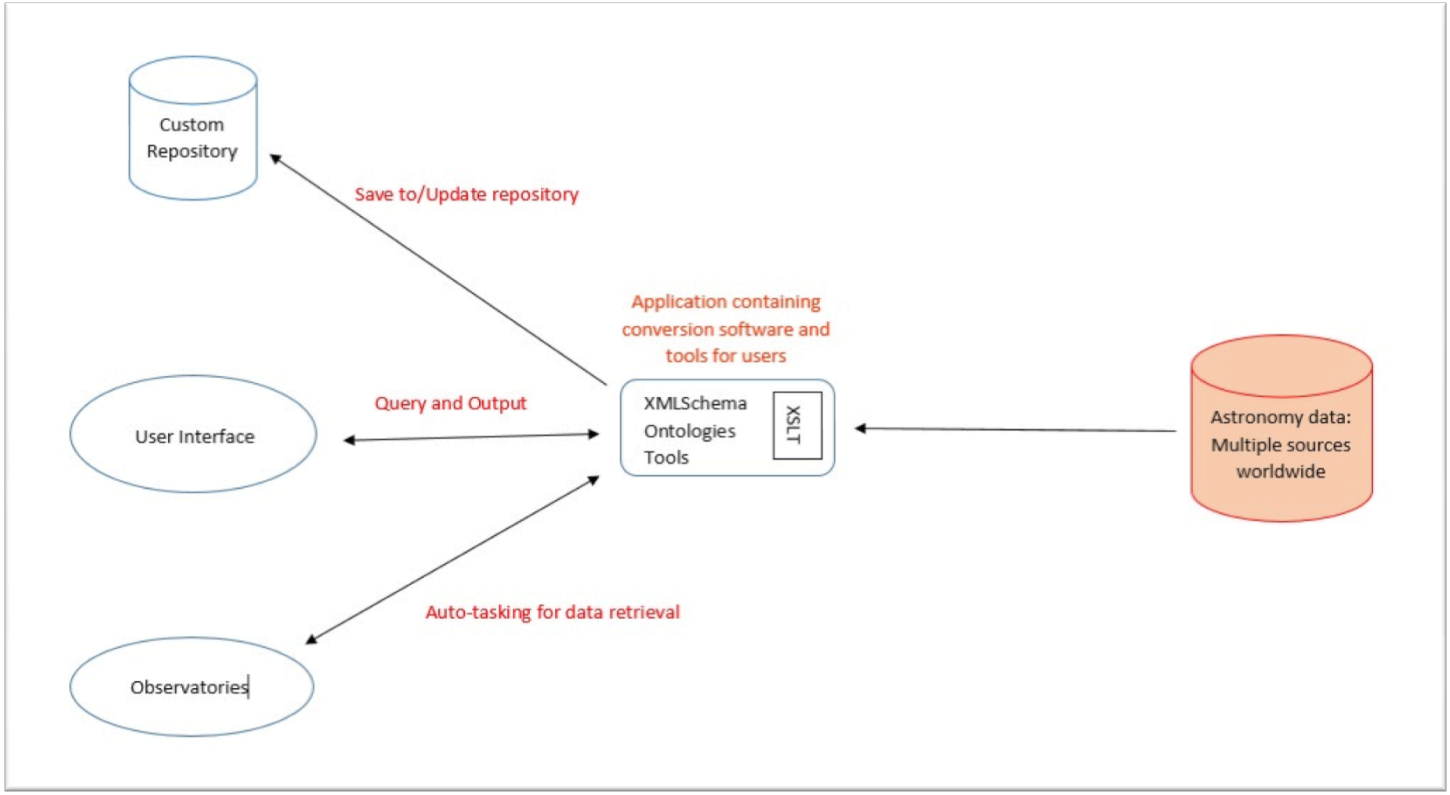
- Data structure using an XMLSchema



The Logical Model

University of HUDDERSFIELD
Inspiring tomorrow's professionals

System Overview



Implementation of a Physical Model

University of HUDDERSFIELD
Inspiring tomorrow's professionals

- Previous work
- Identifying useful data tools
- Future developments

Conclusions

University of HUDDERSFIELD
Inspiring tomorrow's professionals

- Help !

Contacts and references

University of HUDDERSFIELD
Inspiring tomorrow's professionals

Contact:
Guy Beech MScRes, BSc(Hons), FRAS
Collaborative & Research Systems Senior IT Officer
Corporate Information Systems
Computing and Library Services
University of Huddersfield, Queensgate, Huddersfield' HD1 3DH

g.beech@hud.ac.uk
Tel: 01484 472032

http://discover.hud.ac.uk/?p=879
https://www.facebook.com/guybeech.astroinformatics/

References:

Beech, G. (2015). An Investigation of the Benefit of XML Technologies in Astronomical Data Interpretation. School of Computing and Engineering. Huddersfield University, West Yorkshire, UK. http://eprints.hud.ac.uk/id/eprint/28413/

Borne, K. D. (2010). Astroinformatics: Data-oriented astronomy research and education. *Earth Science Informatics, 3*(1), 5-17. doi:10.1007/s12145-010-0055-2

Feigelson, E. (2017). "Astrostatistics and Astroinformatics Portal." Retrieved 17/11/2017, 2017, from https://asaip.psu.edu/

IVOA (2017). "International Virtual Observatory Alliance." Retrieved 01/12/2017, 2017, from http://ivoa.net/

Space, R. (2017). "UK Solar System Data Centre (UKSSDC)." from https://www.ukssdc.ac.uk/

W3cStandards (2017). All Standards and Drafts. W3c Standards

Wall, M. (2014). Astronomy Overload. Space.com