



PathwAI: Artificial Intelligence supported Credit Transfer pathwai.datalab.science

Andrew Heppner – Pathways and Transfer Special Projects Coordinator

arheppne@lakeheadu.ca

Vijay Mago- Associate Professor & Chair, Computer Science

vmago@lakeheadu.ca





Acknowledgements



- Funded by the Ontario Council for Articulation and Transfer (ONCAT)
- Supported by the Department of Computer Science and the Faculty of Science and Environmental Studies as well as the Associate Vice Provost – Academic (Special Projects)
- Research and Development Staff
 - Research/Algorithm Contributions: Atish Pawar, Sahib Singh Budhiraja, Dhivya Chandrasekaran
 - Software Development: Danny Kivi, Chetan Harichandra Mendhe, Andrew Fisher





Challenges



- Collecting course outlines and learning outcomes
- Evaluating the differences in content
 - Biases
 - 2+2
 - 3rd/4th year credit
 - Action verbs versus content
 - Vague LOs versus highly detailed LOs
- Negotiating transfer credit
 - Student centered versus Instructor centered
 - Accreditation/Finances
- Approving transfer credit agreements Documentation

DATALab



PathwAI Transfer System



- A database of shareable course information
- Utilizing Natural Language Processing Algorithms to
 - Assess the similarity of course level learning outcomes (CLO)
 - We assume CLOs are mapped to PLOs and UDLEs
 - Aggregate the similarity of CLOs to provide course to course similarity percentages
 - Recommend transfer credit
 - Organize User Input
 - Mutual Mapping Process
 - Produce reports/output that guides approval (SAC/QA/MTCU)









Current Project Phase: User Testing



Partnering Institutions (Confirmed)

- Mohawk College
- Amity University (India)
- Universidade de Santa Cruz do Sul (Brazil)

Partnering Institutions (In Progress)

- Sheridan College
- OntarioTech University
- Centennial College



Goal & Feedback & Questions



• Ultimate Goal: Stakeholders could meet at a conference or on a plane (with wifi) and create a draft transfer pathway with their phones in 15 minutes.

DATALab

- Current Efforts
 - Implementing new algorithm function (BERT series)
 - Taxonomy based clustering
 - Users to test and provide feedback
- Ideas for Development/Functions
- Interest in using