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Parallel Migrations (but in the same Universe-ity): The migration story of Worcester Polytechnic Institute's digital repository and projects database

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Authors	O'Brien, Emily Ping
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Parallel Migrations

(but in the same Universe-ity)

Emily Ping O'Brien
Digital Repository and Metadata Librarian
Worcester Polytechnic Institute

The WPI Plan

Projects are at the heart of a WPI education...

...students discover the value of learning by doing.



Time to Migrate!



Parallel Migration

Library: Digital WPI Repository

Digital WPI Worcester Polytechnic Institute

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About Digital WPI
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Please note: all content from this site will migrate to a new platform (digital.wpi.edu) offering enhanced content display, discovery, and research. For the most complete data, please use the new platform, as this site will not be updated after September 1, 2020. The digital.wpi.edu site will be retired at the end of December 2020.

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- GREAT PROBLEMS SEMINAR**
The Great Problems Seminar immerses first-year students into
- PROJECT BOZ**
Project Boz presents English novelist Charles Dickens's novels
- WPI HISTORICAL IMAGES**
The WPI Historical Image Collection documents the rich visual

IT: eProjects System

WPI GEORGE C. GORDON LIBRARY
Electronic Projects

Submission, approval, and CDR have moved to eprojects.wpi.edu for all IQP/MQP projects

[eProjects 2.0 IQP/MQP Submission](#) [IQP/MQP Submission](#)

STUDENT SUBMISSION & ADVISOR APPROVAL

1. Convert your report to PDF. Your advisor may want a copy of the pdf you will be submitting online.
2. Submit/Modify your project online.
3. Your advisor must approve the project.
4. You must complete the project Survey, after which you can
5. create your eCDR to sign and give to your advisor. Your project partners must individually complete the survey and print their eCDR as well. If you are using the same pc, each person should exit the browser and start fresh to login individually.
6. Your advisor turns in your eCDR to the Registrar's Office.

For MQPs, you can complete the project and advisor approval in advance of the actual submission, which should save you time when it is time to submit. The eCDR must be filed no later than the fourth day of the next academic term. Students who have filed an application to receive their degree in May may complete eCDR in the Office of the Registrar by the last Thursday in D-term.

A complete list of guidelines is available from the Registrar's Office.

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SEARCH COMPLETED PROJECTS
You can use library responses to search for projects.
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Electronic Projects - Worcester Polytechnic Institute
100 Institute Road, Worcester, MA 01609-2000
electproj@wpi.edu

WPI eProjects Project Submissions Registrar GPS Project Opportunities Global Map IGSD Applications Review Forms Library

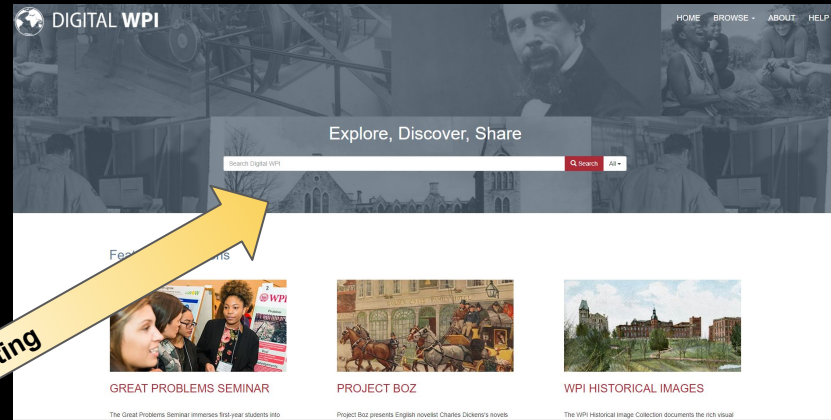
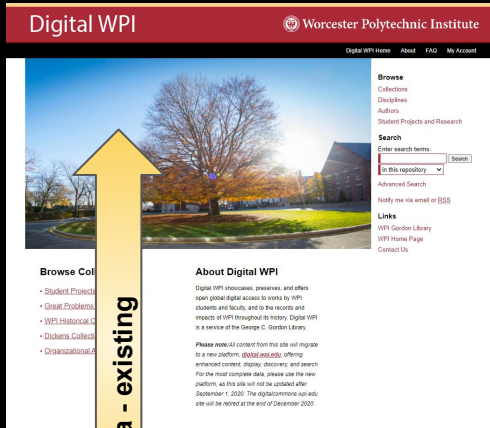
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You can start searching for your next project by visiting **Project Opportunities**

Microsoft Edge

Metadata Migration

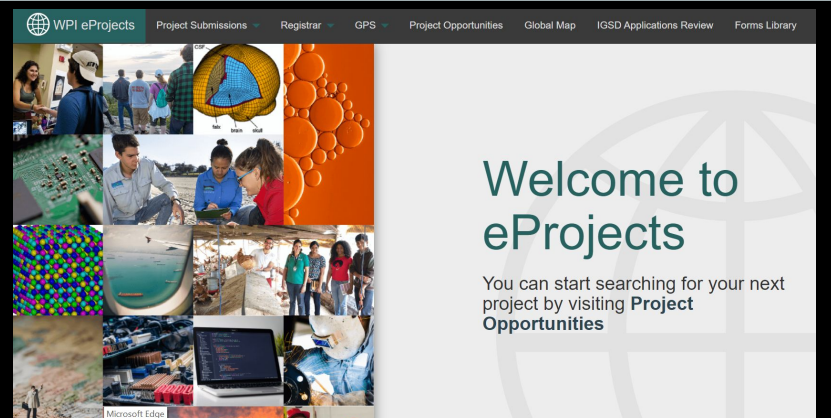
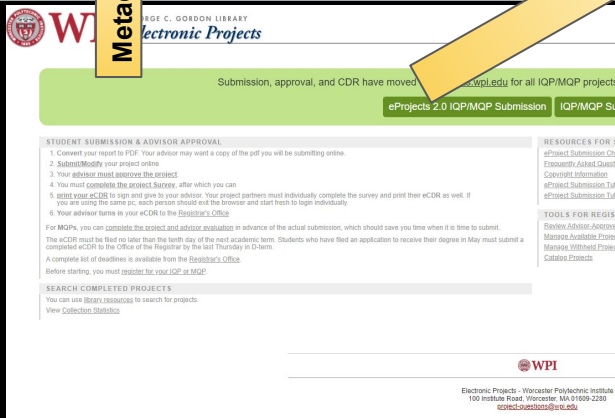
Library:
Digital
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Metadata - existing

Metadata - existing

IT:
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Metadata Ingest

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- Your advisor turns in your eCDR to the Registrar's Office.

For MQP, you can complete the project and advisor approval in advance of the actual submission, which should save you time when it is time to submit. The eCDR must be filed no later than the fifth day of the next academic term. Students who have filed an application to receive their degree in May must submit a completed eCDR to the Office of the Registrar by the last Thursday in D-term.

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Metadata - new

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Opportunities Global Map IGSD Applications Review Forms Library

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Microsoft Edge

Metadata - new



Title page for E-project-043019-110536

Project Type	IQP
Submission date	2019-04-30
Authors	<ul style="list-style-type: none"> • Jacob Bernier, ME • Gabrielle Brown, BIO • Michael Hartwick, ME
URN	E-project-043019-110536
Division	Energy and Resources
Sponsor	WPI
Title	ENVISIONING SOLAR PANEL CANOPY SYSTEMS AT WPI
Advisors	<ul style="list-style-type: none"> • LePage, Suzanne, CE • Rosbach, Derren, UGS
Availability	unrestricted
Abstract	<p>This project assessed the feasibility of WPI's parking areas for a solar canopy system, and developed a recommendation for the most effective option. Potential locations around campus were analyzed, with total area, sunlight exposure, and local topography taken into account. Regional climate patterns and solar incentives were also considered. Best practices were learned through interviews with solar installation companies and other schools with solar canopies. Ultimately, a comprehensive cost/benefit analysis was completed to estimate installation costs and payback periods.</p>
Files	<ul style="list-style-type: none"> • Final_Document.pdf • Payback_Analysis.xlsx • Solar_Canopy_Catalog.pdf

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THEN

eProjects 1.0

Machine learning approaches to manufacturing and materials: Applications to semi-supervised, unbalanced and heterogeneous data problems

View Edit

STUDENT

Author

Approving Advisor



Rasika S Karkare
Data Science

Student ID:



Randy C Paffenroth
rcpaffenroth@wpi.edu

For more information

Title

**Machine learning approaches to manufacturing and materials:
Applications to semi-supervised, unbalanced and heterogeneous data problems**

Abstract

The objective of this thesis is to develop a process in which a process in which also known as a casting process is considered. The porosity is considered the metal, porosity is considered manufactured. If this would save the cost of the process, the quality test is considered. The quality of metal is considered. This thesis focuses on pouring defects or porosity control in heterogeneous and unbalanced data. F1 score, precision

Primary File

Thesis_Final.pdf

No embargo.

Approval Form (Signatures)

Thesis_signed (1).pdf

Additional Files

No files uploaded.

License

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License Information

Not specified.

Additional Advisors

Not specified.

Degree Name

MS

Type

Thesis

Academic Department or Program

Data Science

Co-Advisors

Not specified.

Committee Chair

Not specified.

Committee Members

Not specified.

Readers

• **Xiangnan Kong**

Date of Defense

Tue, 07/30/2019 - 12:00

Sponsor

Not specified.

Keywords

Not specified.

WPI License Confirmation

Confirmed

Author's ORCID iD

Not specified.

Submission Started

**Wednesday, August 7, 2019 -
13:56**

Submission Updated


Wednesday, August 14, 2019 - 16:00

NOW

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INTERACTIVE QUALIFYING PROJECTS (ALL YEARS)

ENVISIONING SOLAR PANEL CANOPY SYSTEMS AT WPI

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[Gabrielle Brown](#), *Worcester Polytechnic Institute*

[Jacob Bernier](#), *Worcester Polytechnic Institute*

[Michael Hartwick](#), *Worcester Polytechnic Institute*

Faculty Advisor

LePage, Suzanne

Faculty Advisor

Rosbach, Derren

Sponsor

WPI

Abstract

This project assessed the feasibility of WPI's parking areas for a solar canopy system, and developed a recommendation for the most effective option. Potential locations around campus were analyzed, with total area, sunlight exposure, and local topography taken into account. Regional climate patterns and solar incentives were also considered. Best practices were learned through interviews with solar installation companies and other schools with solar canopies. Ultimately, a comprehensive cost/benefit analysis was completed to estimate installation costs and payback periods.

Publisher

Worcester Polytechnic Institute

Date Accepted

April 2019

Project Type

Interactive Qualifying Project

125 DOWNLOADS

Since June 14, 2019

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An Interactive Qualifying Project Submitted to the Faculty of
WORCESTER POLYTECHNIC INSTITUTE
in partial fulfillment of the requirements for the Degree of Bachelor of Science
by
Jacob Bernier Gabrielle Brown Michael Hartwick
jbernier@wpi.edu gbrown@wpi.edu mhartwick@wpi.edu

Advisors
Suzanne LePage Derren Rosbach
slepage@wpi.edu drosbach@wpi.edu

Sustaining WPI Project Center 2019

This report represents the work of our on-line WPI undergraduate students submitted to the
Faculty in violation of completion of a degree requirement. WPI expressly prohibits this report
and its contents from being disseminated in any manner.

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Citation

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This project assessed the feasibility of WPI's parking areas for a solar canopy system, and developed a recommendation for the most effective option. Potential locations around campus were analyzed, with total area, sunlight exposure, and local topography taken into account. Regional climate patterns and solar incentives were also considered. Best practices were learned through interviews with solar installation companies and other schools with solar canopies. Ultimately, a comprehensive cost/benefit analysis was completed to estimate installation costs and payback periods.

Creator

Bernier, Jacob
Brown, Gabrielle
Hartwick, Michael

Subject

Sustaining WPI Project Center

Publisher

Worcester Polytechnic Institute

Identifier

E-project-043019-110536

Keyword

Energy and Resources; Sustaining

Advisor

LePage, Suzanne
Rosbach, Derren

Year

2019

Sponsor

WPI

Date created

2019-04-30

Resource type

Interactive Qualifying Project

Rights statement

In Copyright

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Relationships

In Collection:

Interactive Qualifying Projects

Items

Thumbnail	Title	Date Uploaded	Visibility	Action
	Final_Document.pdf	2020-08-16	Public	Se
	Solar_Canopy_Catalog.pdf	2020-08-16	Public	Se
	Payback_Analysis.xlsx	2020-08-16	Public	Se

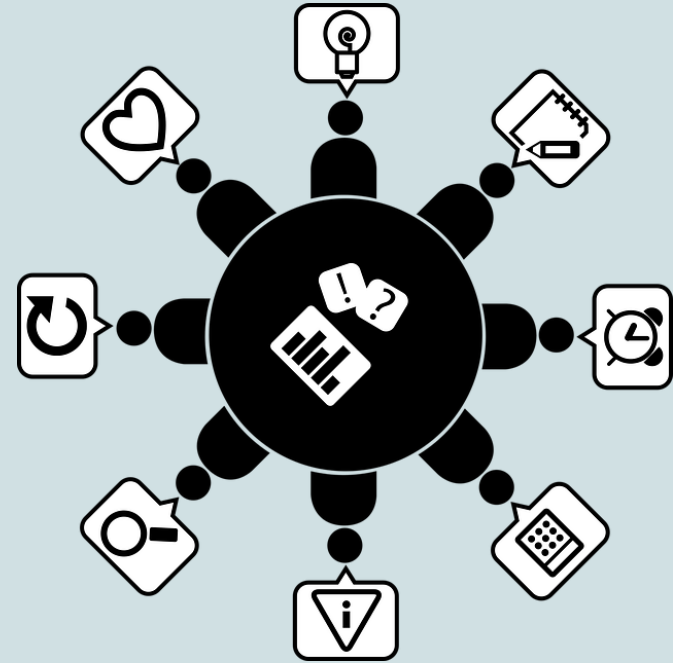
Collaboration - Challenges

- Communication
 - Internal
 - Cross-departmental
- Documentation standards
- Evolving team



Collaboration - What Worked

- Cross-promotion
- Weekly Meetings
- Flexibility with project management methodologies



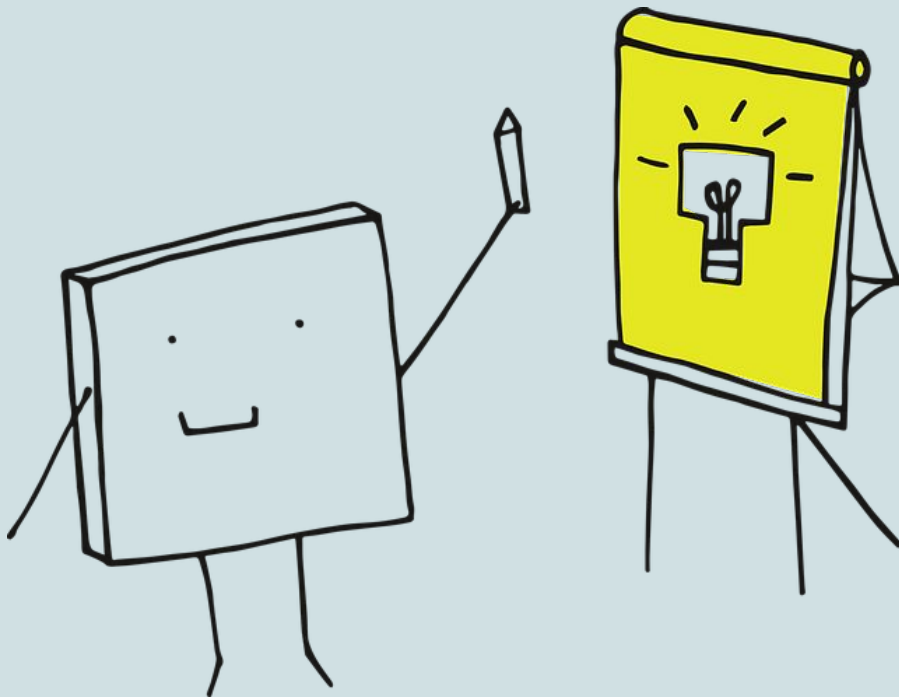
Metadata Prep and Migration

- Migration workflow decisions
- Repository maintenance x 2
- Normalization and clean-up
 - Different depending on repository Migration
 - Each Term
- Addition of themes for faceting



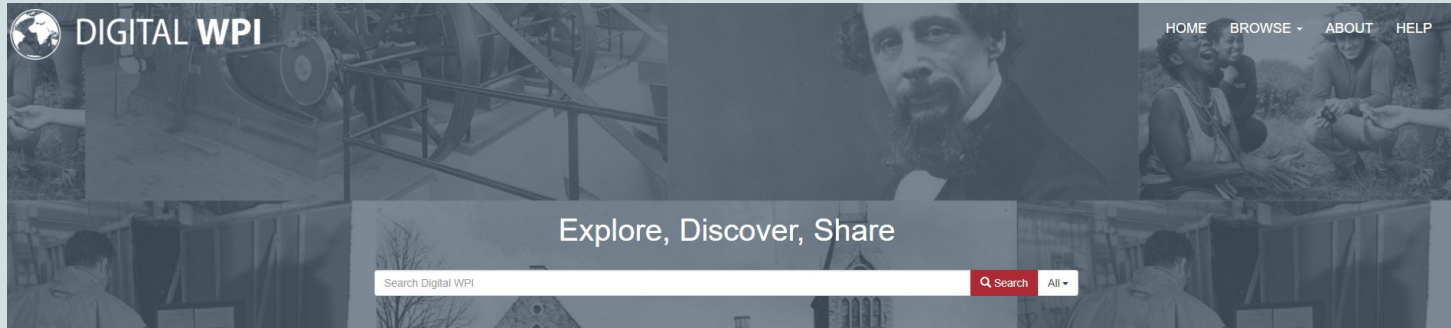
Personal Wins

- Previous SQL knowledge
- Mastering OpenRefine
- Learning Python
- Surprise! DOCUMENTATION!



What's Next?

- PDF Viewer
- Additional digitized WPI historical and special collections
- Full integration with campus core systems
- Custom analytics
- User-created collections
- Incorporate [UNESCO and Sustainable Development Goals](#)



Thank you!



Emily Ping O'Brien
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