Making Knowledge Visible: the process of creating a reflective & integrative learning environments through ePortfolios

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Goals

- Social Context of ePortfolios
- Types of ePortfolios
- Theory, Research & Practice
- Planning Steps & Resources
ePortfolios at the University of Michigan

* Highly diverse, distributed & interdisciplinary environment
  – 54,000 students
  – 225 undergraduate majors
  – 600 degree programs in 19 Schools & Colleges

* No centralized leadership, vision or resources for promoting student learning

* Many different visions of ePortfolio
Pilot Goals

Transform educational experience for students

Demonstrate the accomplishments of students, units, & the institution as a whole

Leverage the university’s contributions for state & society
Demonstrating the Michigan Difference
ePortfolio Pilot Addresses Multiple Needs

Accountability

Community Impact

Institution

Student

Social Change Practice

Lifelong Learning & Leadership Development

Disciplinary & Generative Knowledge

Adaptive Expertise
LIFE-WIDE CURRICULUM

LEARNING TO BE PROFESSIONAL

KNOWING WHAT TO DO

TEACHING HERSELF

CHALLENGE

INFORMATION

YOUTUBE
WEB 2.0
MYSNAPCE

STIMULUS

FAMILY FRIENDS

WILL TO LEARN

KNOWLEDGE

WORKING

EXPERIENCES IN LIFE

OTHER CULTURES

TRAVEL

VOLUNTEERING

CARING FOR OTHERS

BEING VIRTUAL
Initial Question

How can we educate students to learn FOR life if we do not teach them how to learn FROM life?
CHARACTERISTICS OF LIFELONG LEARNERS

are able to

• adapt to changing conditions, emergent knowledge and new information
• reflect on & learn from experience
• identify their own sources of curiosity and limitations
• integrate learning with their own identities, passions and values
WHAT IS INTEGRATIVE LEARNING?

Helping students to:

- Integrate knowledge from different courses
- Applying knowledge gained from one place to a new situation
- Connect learning experiences to their own sense of purpose, identity and sources of engagement and curiosity
CHALLENGES TO PREPARING STUDENTS FOR THE 21ST CENTURY

• problematic assumptions about knowledge, learning & human development
• fragmented Curriculum
• faculty training
Integrating learning from all aspects of life
CHALLENGES TO INTEGRATIVE & LIFELONG LEARNING

Institutional Needs VS. Students’ Needs

Institutional Needs:
Need to provide evidence that students are achieving specific & distinct competencies

Students’ Needs:
Need to reflect on learning, connect separate experiences & integrate knowledge with their own identities
#1. ‘Real’ learning primarily occurs through cognitive understanding of expert knowledge that is combined with self-

![Bloom's Taxonomy](http://www.apa.org/ed/new_blooms.html)
A capacity learned or demonstrated in one place does not automatically translate to other contexts; adaptation must be facilitated.
#3. “Objective” assessment of learning will provide accurate data about how someone is using knowledge in ‘real’ life.
Students do not naturally integrate their learning & higher education fails to help them do so.
Examples of Integrative & Lifelong Learning through ePortfolios
The Principles......
PRINCIPLE #1: effective assessment should focus on how people use knowledge in the context of their lives.
Principle #3: The effectiveness of a program is measured in terms of how well it supports the agency, autonomy, and well-being of people in the context of their lives.
Internal Medicine ePortfolio Activities

1. Provide Organization & Meaning for Residents
2. Facilitate Integrated Assessment
   - Resident Self-Assessment
   - Mayo Practice Log
3. Prompt Reflection & Application of Knowledge
   - templates for advising & presentation
Hospital Pilot Goals

• Facilitate integrative learning in Internal Medicine Resident Education
• Support curriculum change re: Adverse Events
• Increase residents’ competency with regard to practice-based learning & systems-based practice
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<td>Career Development</td>
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**Example: Department of Internal Medicine**

- **Analyze Medical Errors**
  - Describe incident
  - State Initial hypothesis
  - Identify Contributing factors
  - Assess Response
  - Reflect on Learning

*Example: Department of Internal Medicine*
THE INTEGRATIVE KNOWLEDGE PORTFOLIO PROCESS
• How do we educate ethical and socially-just leaders & change agents?

• What kinds of knowledge skills & capacities do people need in order to change communities, institutions & social systems?

• What types of curricula, pedagogy, methods, etc. are needed to educate leaders and change agents?
2002-2006: identifying gaps & developing solutions

• What does all this social-justice stuff mean?

• How do I translate what I’ve learned to the real world?

We need FAR LESS CONTENT & much more time to connect, reflect, integrate – to put all the pieces together
Outcome: Integrative Portfolio-based Learning

- Identify & reflect on key learning experiences FROM ALL AREAS OF LIFE
- Talk about experiences with others
- Write integrative meta-reflections
- Identify sources of curiosity & connect these with actions & identity
- Create a completed Integrative Knowledge Portfolio
Inspiring Involvement in Community Projects

Introduction

No collaborative work gets done without people of diverse talents who believe in what the group is doing as a whole. For some of those members, information is self-sought; participation follows naturally. For the vast majority of others, group involvement has to be inspired by another passionate person. Through my leadership roles in a number of student organizations, I’ve developed both my philosophy and ability in motivating people to action.

When serving as the co-chair of the homeless shelter volunteer program SWAT Hunger (Students Working Against Today’s Hunger) for my community service fraternity, I spoke about the program at chapter meetings, often with over 200 people in attendance. I needed to motivate members to choose the shelter, over many other worthy projects, as the place to dedicate their time. When staffing a table for the literacy group WE READ at an annual student organization fair, my goal was to recruit new talent. I wanted to inspire writers and artists to craft children’s books for Detroit elementary school students and engage volunteers in visiting classrooms to read with those children on a weekly basis.

Importance of Work

At the Shelter Association, volunteer support for cooking and serving is crucial.
Explicit & Formal knowledge
Cognitive
Experiential
Affective
Intuitive
Tacit & embodied
Knowledge
1. Identify & Organize Key Learning Experiences from both academic & real-life experiences
2. Organize Key Learning Experiences into Knowledge/Skill Categories for Portfolio
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FROM IMPACT OF WORK:

Our research work prompted churches and their members to consider the importance and impact of integrating education, prevention and coping strategies for mental health into the black church and community."
3. Write 1-2 page reflections using Integrative Knowledge questions; these reflections become a portfolio pages

- What did I learn & why was it important? What were the “a-ha” moments?
- How does it relate to other contexts or experiences?
- How does it relate to my own interests, passion or goals?
- How might I use this knowledge in the future?
FROM SKILLS GAINED:

From this course, I refined my ability to precisely pinpoint the ways in which I choose to use language. When given a quotation...I would originally focus on my own feelings. My excitement over all of the interrelated but irrelevant ideas associated with a text passage would distract me....
4. **Identify values & create Philosophy Statement:**

- Articulate strengths values & commitments
- Demonstrate how these shape actions decisions & goals

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Over 85% of students say that creating a philosophy statement is the most difficult yet rewarding aspect of the Integrative Portfolio Experience.
My passion evolves from my desire to alleviate social, cultural, economic, and spiritual poverty....I was born into training as a social activist. While growing up, the poverty line was my tent. I went to failing public schools, and I've seen many things. According to hackneyed jargon, I would be considered "At Risk". In college, I have thought deeply about differences...preparedness for college, family structure, support systems...mental Wholeness. I have become a knowledge producer, activist and change agent...
Step 5: Map learning to institutional outcomes

After creating Examples of Work, Students reflect on how the work illustrates different learning outcomes.
Learning to Lead as a Dental Scholar

Overview
Balance in dental school is a challenge, it must be orchestrated to include the obvious: practice and studying how to be a dentist, but balance also includes looking toward the future and continuing to learn and search for what makes you tick, what you are passionate about on a daily basis as well as hobbies and activities that keep you well-rounded, informed and engaged. Including extracurriculars and hobbies while in school has been essential for me since the very beginning, and I took the opportunity to apply to the Scholars Program in Dental Leadership as a way to expand my horizons.
My passion evolves from my desire to alleviate social, cultural, economic, and spiritual poverty...I was born into training as a social activist...the poverty line was my tent. I went to a failing public schools...In college, I have thought deeply about differences..preparedness for college, family structure, support systems...mental Wholeness. I have become a knowledge producer, activist and change agent..

I feel that I can use my experiences in life to relate to others similar to me. A personal goal of mine is to motivate others into action. While the fear of the unknown is deconstructed there is nothing but possibility left. I convey to others that I'm not the smartest person, nor am I special, I wanted a different life and if they wish for something else, it is available to them also.

Romans 8:28 And we know that God causes all things to work together for good to those who love God, to those who are called according to His purpose
5. Connect Portfolio Pages to institutional outcomes

After creating Examples of Work, Students reflect on how the work Illustrates different learning outcomes

- Identify specific knowledge & skills gained at UM
- Apply knowledge & skills gained to real world problems
- Demonstrate knowledge in interesting and compelling ways
- Clearly articulate short & long-term learning goals
- Identify gaps in my knowledge
- Communicate with people from different cultural backgrounds
- Know how people have worked toward social, organizational, & community change
- Have a long commitment to understanding multiple points of view
GENERAL LESSONS LEARNED

Only ‘works’ when students get enough of it

Unexpected: students in some disciplines are generally ‘better’ at reflection than others

Very good peer facilitation is generally BETTER than faculty facilitation
RESEARCH RESULTS: 2010
from Double Blind Interviews...

Mport students stand out:
- Immediacy of responses
- Coherence of self
- Self-direction & internal locus of control
- Ability to use embodied language
RESEARCH RESULTS: 2009-2010
Analysis of student pre/post survey & portfolio pages

- identify knowledge they didn’t know they had
- Translate knowledge from one place to another
- Seek feedback and input from others & change thinking action as needed
- Develop Professional digital identity
RESEARCH RESULTS: 2009-2010
changes in faculty & educators

I now see this entirely
different level of learning
that I didn’t see before..

It's changed how I think
about everything...about
knowledge, learning and
my role as an educator...
2009-2010 FINDINGS
Educators Asking Fundamentally Different Questions

- Who am I as an educator & what is my role?
- How does learning really happen?
- How do we transform the curriculum?
- What will students remember from my course 5 years from now?
Lessons Learned

- Highly diverse needs and interests on campus
- Parents & donors LOVE Integrative Knowledge Portfolios
- Planning & design of ePortfolios is a catalyst for improving programs & student learning
- Best Practices should be identified early and often
- Schools are benefiting from sharing best practices and templates
- Challenges of managing expectations and the meaning of the terms “pilot” “ePortfolio”
PLANNING
Conceptual Overview of the ePortfolio Pilot Process

- Clarify needs & goals
- Visualize “end game”
- Identify how you want
- Integrate Portfolio activities

→ Students
→ Faculty
→ Admin

- Reflect & Synthesize
- Give & Receive Feedback
- Develop Demonstrations
- Run Reports
Mportfolio
Team
<table>
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<tr>
<th>Roles</th>
<th>Tasks</th>
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<tr>
<td>Institutional Stewards</td>
<td>Two associate vice presidents (student &amp; academic affairs) and one well-respected emeriti faculty</td>
</tr>
<tr>
<td>Academic &amp; Research Lead</td>
<td>Formulate &amp; clarify educational &amp; research Vision, goals; evaluate pilot</td>
</tr>
<tr>
<td>Instructional Designer</td>
<td>Translate educational goals into Sakai application &amp; tools</td>
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<tr>
<td>Project Manager</td>
<td>Keeps track of timeline</td>
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<tr>
<td>Technical Lead</td>
<td>Supervises requirements gathering and enhancements to tools</td>
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<tr>
<td>Data Manager</td>
<td>Coordinates large data gathering effort re: student learning &amp; faculty change</td>
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<tr>
<td>Students</td>
<td>Peer-facilitators &amp; peer mentors</td>
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Enable Institutions to Guide Learning & Accountability Efforts

- Motivate
- Guide
- Reflect
- Collect
- Integrate
- Demonstrate
- Share
- Review

Portfolio Owners
Identify:

- key programmatic & research goals (both short & long term)
- detailed assessment practices, interactions, and desired outcomes
- key personnel in charge of planning, design implementation & evaluation
- How ALL stakeholders will be involved in planning & supported in using the tools
- A plan for evaluation, monitoring & improvement
Lessons Learned

• It takes time, effort and vision
• Make sure to start with the goal or end vision & work backwards
• Think of Portfolio as building an educational & research/assessment infrastructure
• Involve the community of users/stakeholders upfront
• Be clear re: the difference between pedagogy & technology
• Do not try to do everything at once
Questions to consider

Who in your institution is *charged* with helping students connect, synthesize and demonstrate their knowledge and learning?

How are students’ supported in making sense of their learning?
Exercise

Think of 2 recent learning experiences
For each experience, reflect on:
1. The context
2. A-ha moments
3. Decisions and actions you made
4. What you learned at the time
5. What it means to you now
Resources

Generative Knowledge Institute Summer Curriculum Change Summit

- June 21-24 Mercy College
- Assignments, syllabi & steps for Integrative Knowledge Portfolio Process
- Evaluation & Assessment consultation