Open Source, Community Developed
Enterprise Resource Planning Software for Higher Education
Jennifer Foutty

Executive Director,
Kuali Foundation
Agenda

• Why Kuali?
• Kuali Project Update
• “Marketectureure of Community”
• Q&A
Putting Their Money Where Their Mission Is
Indiana University

Our Kuali savings more than covered these investments in our core mission:

• Major expansion of our Supercomputing systems

• Massive storage systems

• Most advanced undergraduate collaborative learning theater ever

IU saves $20 million with Kuali open source financial system
Our Kuali savings more than covered these investments in our core mission:

- A campus-bridging supercomputer and funding for its next 3 upgrades
- Buying a building in the tech park to establish CyberCenterMaryland
- Established and staffed for 5 years an improved Center for Teaching Excellence

“Our costs for KFS are about $4M. If we chose vended software, we’re talking about 4-5 times more cost.”
Who We Are

The Kuali Foundation provides an efficient way to pool investments and achieve sustainable software at a total cost of ownership that is superior to all other options.

- More than 70 education-focused organizations collaborating to build software that solves the challenges of higher ed ERP.
- Member organizations invest money, resources, and development towards 8 software products/services.
- This collaboration is delivering a full suite that meets the specific needs of ERP for higher ed institutions.

Kuali Foundation At A Glance

- $25M organization
- $100M+ invested in product dev
- 8 software systems
- 70+ member institutions
- 50+ implementations
- 10 commercial affiliates
What We Do

Kuali ERP Suite for Higher Ed, by Higher Ed

- Financial System: Comprehensive Financials
- Student: Next Gen Student System
- KPME: HR / Payroll
- Coeus: Research Administration
- OLE: Open Library Environment
- Ready: Business Continuity
- Mobility: Cross-Platform Mobility
- Rice: Kuali Enterprise Workflow (KEW), Kuali Identity Management (KIM), Kuali Rapid Application Development (KRAD), Kuali Service Bus (KSB), Kuali Enterprise Notification (KEN), Kuali Nervous System (KNS)

Foundation Services
- Financial Management
- Legal & Trademark Services
- Intellectual Property Licensing
- Hosting Services
- Collaboration Infrastructure
- Community Collaboration
- Event Management

Application Roadmap Committee (ARC)
Technology Roadmap Committee (TRC)

Project Governance
- Project Board
- Project Management Functional Council
- Development Team
- Subject Matter Experts

6/28/2013
Why You Should Care

We’re saving colleges and universities millions of dollars that they’re putting back into their core missions.

THE BENEFITS TO YOU.

✓ Save millions with low acquisition, implementation, maintenance, and upgrade costs.

✓ Customize less. Deploy faster. Adopt easier with software that’s built just for you, not banking or manufacturing.

✓ Reduce risk and improve success with software that cannot be taken away, closed down, or discontinued.
### Affordable Now and In the Future

<table>
<thead>
<tr>
<th>Typical Costs:</th>
<th>Traditional, Vended Software</th>
<th>Kuali Open-Source, Community Built Software</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Software Acquisition:</strong> Licensing, hardware, databases...</td>
<td>Expensive software licensing fees.</td>
<td>Open source = no licensing fees.</td>
</tr>
<tr>
<td></td>
<td>$$$$</td>
<td>$</td>
</tr>
<tr>
<td><strong>Implementation:</strong> Customization, deployment, training...</td>
<td>Requires a lot of customization and training.</td>
<td>Already works for your institution and is intuitive for higher ed.</td>
</tr>
<tr>
<td></td>
<td>$$$$</td>
<td>$</td>
</tr>
<tr>
<td><strong>Maintenance and Upgrades:</strong> Upgrades, support...</td>
<td>Expensive and disruptive.</td>
<td>Free upgrades. Minimal disruption. Choice.</td>
</tr>
<tr>
<td></td>
<td>$$$$</td>
<td>$</td>
</tr>
</tbody>
</table>
Together We Build Something Better

- **Higher Ed Best Practices Built-In**
  - **Immediate Alignment to Your Needs**: Optimal best practices and business processes from 50+ universities, large and small, embedded in Kuali
  - **Customize Less**: It’s developed for higher ed, not banking or manufacturing.

- **Built by Higher Ed, for Higher Ed**
  - **Deploy Faster**: It already works for you because it’s been built for you, so deployment is faster.
  - **Adopt Easier**: It’s made for you and addresses all of the uniqueness that is higher ed. You’ll find it’s quite intuitive, and so will your users.
You’re In Control

• **Kuali software cannot be taken away, closed down, or discontinued as a product line**
  – Reduce risk and improve success

• **Product destiny is in your hands and the hands of your peers**
  – You and your peers control product development and the roadmap / future

• **Community collaboration reduces recurring costs**
  – Free information sharing among institutions for data models, implementation templates, reporting structures, and training materials

  • Development is amortized across contributors.
  • Open standards reduce vendor lock-in.
  • Licenses give free access to the code.
Proven and In Production
A Growing Community of Universities, Large and Small
Options for Rich Support

Kuali Commercial Affiliates (KCAs) provide:

- **Services**
  - Planning
  - Implementation
  - Cloud Delivery

- **Support**
Engagement with Kuali

- Member
- Partner
- Adopter
Why become a Foundation Member?

• Support community source as an option
• Ensure control of our own destiny
• Guidance to the overall Kuali community
• Suggest/choose new projects
• Participate in our events, including Kuali Days
• Network with like-minded institutions
Why become a Project Partner?

• Participate on the Board and Functional Council, which provides direct influence on the direction and priorities of the system
• Assign you own developers to the team, which results in many benefits:
  – Networking with others
  – Learning the software, both technically and functionally
  – Buying down implementation and training costs back home
  – Participating in best practices
  – Increasing professional development
• Get pre-releases of the software
• Receive support from the community
• Participate in additional collaboration activities which provide intensive discussions, both technical and functional
Adopter

• Download the software
• Can communicate with the community through collaboration lists
• May or may not use a Commercial Affiliate for support, either during implementation or ongoing
How to become an Adopter?

• Go to www.kuali.org
• Download the software and documentation
• Engage a Commercial Affiliate if needed
Update on Kuali Projects
Kuali Rice

Modules

• Enterprise Notification
• Enterprise Workflow
• Enterprise Identity Management
• Enterprise Nervous System
• Rapid Application Development
• Rules Management System
• Service Bus
Kuali Rice Implementations

BOSTON UNIVERSITY

Colorado State University

Cornell University

INDIANA UNIVERSITY

MICHIGAN STATE UNIVERSITY

NAVAL POSTGRADUATE SCHOOL

THE OHIO STATE UNIVERSITY

SAN JOAQUIN DELTA COLLEGE

UC DAVIS UNIVERSITY OF CALIFORNIA

UNIVERSITY OF HAWAII

UC CONN UNIVERSITY OF CONNECTICUT

UNIVERSITY OF MARYLAND

USC University of Southern California

UCIRVINE UNIVERSITY OF WASHINGTON
Kuali Financial System (KFS)

Modules

- Account Receivable
- Budget Construction
- Capital Assets
- Chart of Accounts
- Contracts & Grants
- Effort Certification
- Endowment Management
- General Ledger
- Labor Ledger
- Purchasing/Accounts Payable

Roadmap

Release 5.0.2 - May 2013
- Rice 2.1.6 Functionality
- Enhancements to REQs, POs & Super User Functionality

Future Enhancements
- Travel & Entertainment
- Contracts & Grants Billing
- KRAD Conversion
- Check Writer
- Stores
KFS Implementations

- Colorado State University
- Cornell University
- Haverford
- Indiana University
- Michigan State University
- Naval Postgraduate School
- San Joaquin Delta College
- Stevens Institute of Technology
- Strathmore University
- The University of Arizona
- University of California
- University of Hawaii
- University of Southern California

Kuali®
Kuali Coeus (KC)

**Modules**
- Award
- Conflict of Interest
- Grants.gov S2S Submission
- IACUC
- IRB Human Subjects
- Institutional Proposal
- Negotiations
- Proposal Log
- Proposal & Budget Development
- Questionnaire
- Report Tracking
- Subawards

**Roadmap**

*Release 5.0.1 - August 2012*
- Rice 2.1.1 Support
- Full Equivalency to MIT Coeus
- IACUC Functionality

*Future Enhancements*
- Proposal Development Subaward Budget
- Subaward Boilerplate Agreements
- BIRT Integration
- Data Extract Tool
- SF284/SF295 Reporting
Kuali Student

Modules

• Academic Planning
• Accounts
• Course Offering/Registration
• Curriculum Management
Modules

- Financial System/ Labor Ledger Integration
- Time Keeping
- Leave Management
Kuali Open Library Environment (OLE)

Modules

• Purchase Item
• Checkin, Checkout, Request & Renew
• Patron Management

Roadmap

Pre-release 0.8 - May 2013
- Checkin, Checkout, Request, Renew
- Patron Management
- Overdue & Courtesy Notices
- Circulation Standards: SRU/Z39.50

Future Enhancements
- Patron Self-Services
- Circulation Standards: NCIP
- Integration with ILL & Course Reserve Systems
Marketecture of Community

The Market of Communnity

By Brad Wheeler and James L. Hilton

Socrates argued that the unexamined life is not worth living. For the past decade, the two of us—along with many colleagues, organizations, and commercial firms—have been immersed in the booming buzzword confusion that is the community landscape of higher education. We have communities that build software (e.g., Java, Kuali, Moodle, Sakai), communities that buy together (e.g., JenzMaps), Net+, and communities that create services unique to the academy (e.g., Digital Preservation Network, DataSpace, HathiTrust). Some of these communities are thriving as they solve common institutional problems, whereas some remain short of their aspirations. For others, it is still far too early to discern if they will reach critical mass and succeed.
Challenges
Collectively, colleges and universities do *not* have a *money* problem. We have a *coordination* problem.
The Island Era

“They built HUTS! We must build huts.”

“Fire, fire, we need FIRE!”

“SWINGS! They’ve built SWINGS! We're gonna need Swings.”
Goal:

Increase your confidence that we can change the game

*and we must...*
The Economic Context for Higher Ed has Changed

But so have the tools and possibilities
At the end of the twentieth century and into the twenty-first, higher education has invested, by a conservative estimate, $5 billion in administrative and enterprise resource planning (ERP) systems. ERP — three letters that represent the tremendous time, energy, and money consumed by hundreds of institutions over the past decade.
Systems

- Island Era of Imitation and Duplication
- Era of Collaboration and Leverage

1995 | 2010 | 2020

6/28/2013
As the internet drives down *coordination* and *distribution* costs at an unprecedented scale worldwide, colleges and universities have the deep cultural *values* and *scale* to change the game to our advantage.

The question is...do we have the *will* to do it?
A Tale of Two Matrices
Institution

We have an interest!

Laboriously write unique RFP

Firms

We do too...

Read this!

Laboriously respond to RFP

Institution

But which one...?

Laboriously evaluate RFP responses

Hires consultants to evaluate

That one!

Opt out of RFP?

Contract (& Prayer)
## A Silly Matrix

### RFP Responses and Evaluation

<table>
<thead>
<tr>
<th>Criterion / Vendor</th>
<th>BigCo A</th>
<th>BigCo B</th>
<th>CloudCo A</th>
<th>HomeGrown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature A</td>
<td>3.2</td>
<td>2.9</td>
<td>5.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Feature B</td>
<td>1.6</td>
<td>1.8</td>
<td>4.8</td>
<td>5.0</td>
</tr>
<tr>
<td>... Soft Factor Z</td>
<td>4.0</td>
<td>2.0</td>
<td>0.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Risk</td>
<td>-3.0</td>
<td>-2.5</td>
<td>-0.0</td>
<td>-1.3</td>
</tr>
<tr>
<td>Cost</td>
<td>-1.2</td>
<td>-1.0</td>
<td>-5.0</td>
<td>-3.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4.6</strong></td>
<td><strong>3.1</strong></td>
<td><strong>4.8</strong></td>
<td><strong>4.7</strong></td>
</tr>
</tbody>
</table>

*Winner!*
Indiana University’s Process

Indiana Univ.
We have an interest!
We need a new financial system

Firms
We do too...
Read this!
Just $23M (wink)

Us
But which one...?
Ugh!
None of the above

No thanks!
Think differently!
Indiana Saves $20 Million

By doing the “Magic of Collaboration and Partnership”

...via a different matrix
A Different Matrix...a Marketecture Matrix

- Clubs
- Collaborative
- Contracts
- Cooperative
The Old Matrix Pretends $\frac{3}{4}$ of Options Don’t Exist


Contracts

Clubs

Collaborative

Cooperative
Marketecture of Communities
Aspiration
Conflict
Authority
Authority

Ownership
or Influence
Achieve!

Repeat?
Marketecture of Community

*Marketplace* of ideas for Communities, but they need a strong *Architecture* to help resolve inevitable *Conflicts*. 
Marketecture Matrix

- Buying Clubs
  - *BigTen or Internet2
    - Net+
- Collaborative Communities
  - *HathiTrust or Kuali*
- Each University
- Solo Contracts
- Open Source Software
- Cooperative Communities

Influence

Authority

Lower Market (Use)
Higher Community (Own)
Marketecture of Community

Are you really serious about reducing the cost of higher education?
Marketecture of Community

Are you willing to collaborate to change the game?

Behavior changes required
Challenge #1

Using locally based approaches in a global world...
Challenge #2

Pretending that “Hide the Risk” actually reduces it...
Challenge #3

Forgetting who we are...

Collaboration is in our DNA!
Collaboration at Scale Example

Kuali Foundation
What to Do?
Buying the Future Differently

1) Adopt a ‘Beyond My Island’ mindset
   • Local optimization *is* sub-optimization
“Some proffer that ‘The Cloud’ – and particularly the commercial cloud – will solve our problems. To me, this pitch sounds very familiar to the promises of the past 15 years that proved to be very expensive and quite constraining over time.

Even The Economist writes to ‘beware the cloud’ as the next form of vendor lock in and loss of control (28 May 2009), and that problem only gets worse as firms become distracted in buying and selling each other over time.”
2) Solutions as Paths, not just Products

“Some of us have seen fortunes slip through our hands as we learned how to implement these kinds of systems in universities.”

MIT, Cambridge, February 2000

“Mitigating the Risks of Big Systems”
NACUBO Business Officer Magazine
July-August 2007
3) Rethink the Old Matrix
   • Procurement Dependence

<table>
<thead>
<tr>
<th>Feature</th>
<th>Product 1</th>
<th>Product 2</th>
<th>Product 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature X</td>
<td>-1</td>
<td>+2</td>
<td>-2.4723</td>
</tr>
<tr>
<td>Feature Y</td>
<td>+2.7</td>
<td>-0.5</td>
<td>+2.1111</td>
</tr>
<tr>
<td>Feature Z</td>
<td>N/A</td>
<td>+1</td>
<td>+2.4722</td>
</tr>
</tbody>
</table>

1.7 2.5 2.111
Request for Proposals
New Financial System Needed

Qualified offers must not exceed the following terms:

a) Fully-paid up, unmetered license, perpetual use
   Less than $10,000, paid upon successful go-live

b) 10 year maintenance/support agreement
   Not to exceed $50,000 per year for 10 years...

c) Up to 2,000 consulting hours @ $130 per
   Additional 1,000 hours @ $100 per
   Additional 1,000 hours @ $60 per
Why Buy Software You Already Own?
Request for Proposals
New Financial System Needed

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c) Up to 2,000 consulting hours @ $130 per
   Additional 1,000 hours @ $100 per
   Additional 1,000 hours @ $60 per
Fair Questions...

(Circa 2004)
Q: Can disparate institutions agree on software design?

✓ Yes
Q: Can distributed development teams code *enterprise scale* quality software?

✔ Yes
Q: What about commercial support?
Q: Will it work?

✔ Yes
Q: Will it really cost less to implement and sustain?

✓ Yes...(and soon to be) Yes x 15
Q: Is the community model extensible to other software/services needs?

✔ Definitely Yes
Q: How many faculty lines and scholarships did that buy decision cost you over a collaborative path?
Recent / Current Projects:

- ERP Upgrade $83 M
- HR System Replacement (Big U) $100-200 M
- HR System Replacement $83 M
- Student System Replacement (Small Institution) $20-40 M

Here we go to another $5B...
Questions?

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- Barry: [walsh@kuali.org](mailto:walsh@kuali.org)