UNIVERSITY OF TORONTO

Impact Analysis Case Study

(for discussion)

September 25

2013

In late spring of 2013 MRA was rolled out in phases across the University. MRA replaced the previous paper-based process of submitting research applications for an internal review and approval with a web-enabled solution.

MRA – My Research Applications

Project Description

The web enabled MRA system allows faculty members to submit their research applications for internal review and approval. MRA leverages the existing HRIS and RIS systems to automate the workflow, control access and delineate system roles.

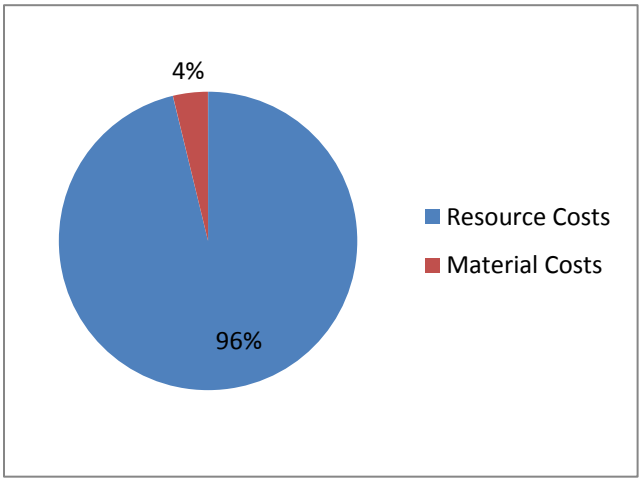
Business/Technical situation

All research funding applications must receive approval from the University prior to submission to the sponsor. The University relies upon the prior assurances of Chairs/Deans. As a result, faculty members were forced to walk a form around the campuses to gather the appropriate signatures. This process was complicated by divergent internal Divisional practices making it difficult for both faculty and University signatories to ascertain who the proper authorities were. Through this process faculty provided summary information on the proposal and indicated which protocols and permits were relevant to the project at hand. Once the paper reached the central offices, all this information was rekeyed into the Research Information System.

Solution

In the spring of 2013 MRA became the most recent RAISE project to go live. RAISE has already produced substantial savings and improvements in risk management. Development of the MRA solution commenced with an analysis of current practices. The resulting optimized processes were codified in MRA system rules which automatically route applications to the appropriate internal approvers. The system provides a comprehensive and transparent audit trail of all transactions, simplifies document retention and retrieval, and facilitates compliance (key to retention of $400 million in annual research funding). MRA seamlessly integrates with HRIS and RIS, automatically controlling access, eliminating data rekeying and provides PIs with real-time access to their research proposals, protocols and permits. The system also provides Chairs/Deans self-serve access to real-time application information for their units.

Projected Savings: $285,000 annually



Cost-Benefit Categories

EXAMPLES:

- **Material Cost Savings – 4%**
  (photocopy of paper applications)
- **Resource Cost Savings – 96%**
  (elimination of faculty chasing signatures, rekeying of data)

Solution Results

Since going live in spring 2013, over 1200 applications have been submitted through the system. The tools available to PIs for data input have improved data quality - rather than combing through their files to find the relevant protocol, PIs are provided with a list of their protocols from which to choose. There are reduced time demands on faculty as the hunt for signatures has been replaced with the click of a mouse. Self-serve features for academic administrators provide real-time data on research applications related to their units and access to commericialization and knowledge transfer potential data for the IPO. By eliminating the need to retain paper copies of applications MRA will have a considerable postive environmental impact.

Cost Savings, Service Enhancement & Risk Mitigation Analysis

Ref #	Activity Category	Activity Sub- Category	Transactions per year	Cost per unit	Total Savings	Savings Attributed to:
1.0	**Material Costs**	Reduce photocopy of applications	217,000	$0.05	$10,850	Divisions
2.0	**Resource Costs**	Eliminate walking paper around the University	3100	$80.14	$248,434	Divisions
2.1		Eliminate Re-keying of data	3100	$8.5	$26,350	RSO/IPO
2.2		Access to data				Divisions/RSO/IPO
2.3		Document storage and retrieval				Divisions/RSO/IPO
3.0	**Risk Reduction**	Internal compliance				Divisions
3.1		External compliance				Divisions
4.0	**Brand Equity**	First of the U15 to fully automate internal submission and approval				Divisions

Reference # provides detail and assumptions made to calculate the cost savings

1.0 Paper applications:

Number of Applications per year	3100 (average number of applications for the most recent 3 year period)
Minimum # of copies	3 (PI, Chair, RSO/IPO)
Average # of pages per application	35 (estimate)
Photocopy cost per page	$0.05 (paper/equipment depreciation/faculty & staff time)

Reduce volume by an estimated 66%
$10,850 cost saving

2.0 Faculty time:

Number of Applications per year	3100
Time spent gathering signatures	2 hours per application
Average faculty salary	$150,670 (tenured & tenure stream research faculty-no benefit cost)
Hourly faculty cost	$80.14 (40 hrs/wk x 47 wks)

Reduce volume by an estimated 50% (assumed that students currently run half the applications around)
$248,434 cost saving

2.1 RSO/IPO time:

Number of Applications per year	3100
Time spent rekeying data	15 minutes per application
Average staff salary	$60,000
Hourly staff cost	$34 (36.25 hrs/wk x 49 wks)

$26,350 cost saving

2.2 Access to data:

Unit heads now have real-time access to a wide variety of research application data. Some of this data could previously be provided by the RSO. However, the scope of the data which is now available surpasses what could have been previously provided.

2.2 Document Retention and Retrieval:

Research application documents are now stored in a secure on-line environment and are available to PIs, Academic Administrators and Staff. This eliminates the need for the storage of paper application documentation and facilitates easy document retrieval.

3.0 Internal Compliance:

The system ensures that only those who meet the University's PI eligibility guidelines can submit applications. Additionally only those units authorized to administer research and their respective unit heads and delegates may approve applications. The system ensures that only duly authorized representatives may undertake commitments on behalf of the University.

3.0 External Compliance:

The research environment requires strict adherence to various regulatory regimes regarding the use of human subject and animal protocols, and environmental health and safety permits. MRA seamlessly integrates with RIS to provide PIs and U of T Co-PIs and Collaborators with simple real-time access to their protocols and permits, and allows them to link these to the relevant research application. Failure to comply with these regulatory regimes would seriously compromise the University's research enterprise as large portions of the University's research dollars could be suspended.

3.0 Brand Equity:

With the advent of MRA the University becomes the first of the U15 to fully automate internal review and approval of research applications. This tool will enhance the University's reputation as a leader in the field of research administration.