

In Touch

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Western Identity Manager

Identity Management Team <its-idm@uwo.ca>

ITS implemented a new Password Management process on December 3, 2009. This is the first module of our Western Identity Manager system.

Password Management provides a common secure self service application for the Western community to change a password or reset a forgotten password for your Western Identity. The process is similar to what is used by

commercial applications, including banks using challenge response questions to confirm your identity.

For further information please refer to

<http://www.uwo.ca/its/identity/>

Would you prefer to receive an email with a link to the online version of *In Touch*?

Email: in.touch@uwo.ca to request to be added to the mailing list.

NOTE:

The new mailing list is also used for the ITS Course Brochure.



Scheduled System Maintenance

**Sundays
6:00am - 12:00 noon**

Need help, have a question?

- Call the ITS Customer Support Centre
519 661-3800 ext.83800
- ASK ITS at <http://askits.uwo.ca/>
- Email using the Web Form at
<http://www.uwo.ca/its/helpdesk/question.html>

About *In Touch*:

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We welcome your comments,
suggestions, and articles.

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ITS Mission

We are committed to
delivering the best information
technology services and solutions
in support of the teaching and
research missions of the
University.

ITS Vision

To be recognized as the
preferred source of information
technology services and solutions
within the campus community
and recognized as one of the
leaders in the North American
university community.

Network Backup Service

For network backup and
recovery service please contact
the ITS Legato Group, e-mail:
legato@uwo.ca For details see:
[http://www.uwo.ca/its/network/
backup.html](http://www.uwo.ca/its/network/backup.html)

ITS OPEN HOURS

Building hours and hours of
opening for the various areas of
ITS are listed on the web at
[http://www.uwo.ca/its/about-its/
hours.html](http://www.uwo.ca/its/about-its/hours.html)

In Touch Mailing List

Additions, deletions, and
changes to the mailing list can be
made using the form on the web
at [http://www.uwo.ca/its/doc/
newsletters/InTouch/
subscription.html](http://www.uwo.ca/its/doc/newsletters/InTouch/subscription.html)

ITS Services Document

<http://www.uwo.ca/its/services.pdf>

Securing Information: At What Cost?

James McCloskey <jamesm@uwo.ca>



The Summer and Fall 2009 issues of *InTouch* began a three-part discussion about information security and its fundamental principle, risk management:

- What is it that we are trying to protect?
- Against what threats?
- At what cost?

This final article focuses on cost/benefit analyses within a risk management strategy: with potential threats to the confidentiality, integrity, or availability (CIA) of important data well understood, and the approaches to reducing the likelihood and/or impact of such threats having been identified, data owners and custodians can develop an action plan to most effectively reduce or mitigate information risks.

Qualitative vs. Quantitative Considerations

So you know where and how your data may be at risk, and you have an understanding of what potential actions could be taken to reduce those risks. What to do next?

As noted in the previous articles, “perfect” security is unattainable – assuming the data is going to be accessible to users. Some balance between usability and security of information must be struck,

recognizing that there are both direct and indirect costs (and benefits) associated with any security implementation.

Direct costs include any capital or expense items associated with the implementation: is there any equipment or software required, and are there any additional management burdens associated with maintaining the

In an ideal world, risks associated with *all* components of the system “portfolio” would be analyzed, prioritized, and mitigated ...

additional security controls? Direct costs can usually be quantified, though often incremental labour costs associated with a new control can only be estimated. Similarly, direct benefits may be able to be identified – for example, the security implementation may enable a measurable business efficiency that was previously unavailable.

Indirect costs are more challenging, typically encompassing less-quantifiable elements such as productivity impacts associated with the new control. One example might be the impact to users of a website resulting from the addition of a “CAPTCHA” control to a web form to reduce the likelihood of the form being abused by email spammers. One indirect cost in this scenario would be the (relatively minor) inconvenience to legitimate users of the web form.

Depending on the volume of spam activity directed at the web form, this indirect cost might be seen to outweigh the expected benefits of implementing the CAPTCHA.

Another group of indirect costs fall under the umbrella of “unintended consequences” – that is, implementing a new security control may result in other undesirable behaviours that are challenging to quantify. A good example of this type of problem relates to the strength of passwords and the design of password management systems: while forcing ever longer and ever more complex passwords on users, or requiring different passwords for different systems, reduces the risks associated with targeted password guessing attacks (typically executed by external parties), much research has shown that forcing such controls on users typically results in more passwords being written down. This outcome is often more risky than the alternative, as it increases the risk to information from internal parties who might have physical access to the written passwords. [Note: the next *In Touch* article on Information Security will focus on the issue of managing such password complexity in a *secure* manner.]

Relative Cost/Benefits, Limited Resources

By considering these direct and indirect costs and benefits, you can determine what the “right” level of security controls should be for a given system or data set. Clearly, controls that provide more benefits than the associated costs are valuable controls; similarly, those that cost more than the associated benefit are inappropriate.

Within new system implementations, incorporating such an analysis and resulting outcomes into the initial system design means that security controls can be built into the system, and implementation budgets and schedules can be created in light of the identified costs. Though additional budget and schedule pressures are rarely welcome, the risk analysis supports a well-reasoned defence of the project impact – and for this reason, addressing known security costs up front is usually far more preferable than dealing with the potential of consequences stemming from an insecure system implementation.

For existing systems, however, the challenge is far greater: most data owners and custodians are responsible for more than a single system or data set, and thus may face managing a “portfolio” of potential security-related enhancements based on evolving threats and vulnerabilities. In this case, the additional challenge revolves around the deployment of additional resources from a limited resource pool, in the most effective manner possible. That is, since not all risks and potential actions are equal, some method of prioritization is needed, recognizing that resource allocation decisions must be made almost invariably with incomplete information. In an ideal world, risks associated with all components of the system “portfolio” would be analyzed, prioritized, and mitigated; in reality, such a “full picture” rarely exists – getting to that point would effectively mean putting all system-related progress on hold for an extended period of time, while the analysis is completed.

As such, an iterative and relative approach to portfolio risk management is required. Resources that could be deployed to address one risk might be better allocated to mitigating a different risk; the relative costs and benefits of various options must be considered, and such relative costs and benefits must be re-evaluated periodically to

ensure the most effective use of limited resources based on the limited information available. Of course, this also means that some risks to information will be accepted as either unavoidable or lower-priority – but even this is valuable to those responsible for such at-risk information.

Summing Up

Pursuing the risk management-based approach described in this set of articles is not a trivial exercise, but the process is invaluable: action plans can be developed, executed, and evolved to address key areas of concern, while at the same time data owners and custodians are able to achieve greater clarity in terms of residual risks, which can influence future decisions on resource allocation. As the saying goes, “knowledge is power” and on this topic specifically, knowledge about information security risks provides decision makers with the ability to more effectively manage those risks.

* * *

For more in-depth information, visit the <http://security.uwo.ca> or <http://wellness.uwo.ca> sites. As always, if you have an Information Security issue, concern, question, or comment, or if you want more information on the topics discussed in this article, please do not hesitate to contact me. And keep computing safely!

Secure Your Email Password

*ITS Customer Support Centre
<helpdesk@uwo.ca>*

ITS sent an email in November 2009 to anyone who was reading their Western email using an unsecured protocol, which transmits the person’s Western username and password in unencrypted clear text.

Starting January 1, 2010, ITS discontinued unencrypted IMAP and POP services. If you haven’t already done so, please take a moment to reconfigure your email client by following the instructions found at <http://www.uwo.ca/its/doc/hdi/email/secure.html>. This procedure will protect your email credentials by using encrypted IMAP/POP and SMTP protocols. By changing a few simple settings in your email client, you can prevent your username and password from being transmitted in clear text when sending or reading your email.

After making these changes to your email client, you should also consider changing your password. Instructions to do this are given at <https://www.uwo.ca/its/accounting/ChangePassword.html>

Note that these instructions will only protect your username and password when logging in to the Western email servers but will not encrypt the contents of emails that you send or receive across the Internet. Email communications should always be considered “as secure as sending a postcard.”

If you have any questions or need assistance with reconfiguring your email client, please contact the ITS HelpDesk at <http://www.uwo.ca/its/helpdesk/>

New Contact Centre Services at Western

Mona Brennan-Coles <mona@uwo.ca>



ITS provides Contact Centre services to the Registrar's Office and the ITS Help Desk using Nortel's Symposium to direct callers to the best person to answer their question. International and long distance callers to the Registrar's office are given priority in the queues to minimize their expense.

An ITS project team was formed in October 2009 to investigate and select a replacement for Symposium so that existing services can be moved to VoIP and new services can be offered. Team members are Helga Alcorn (Purchasing), Paul Bottone, Mona Brennan-Coles (Project Team Leader), Ed Gibson, Sandi Patterson, Jean Savage, Doug Vandevrie, Nancy Wellard and Brad Wells (all from ITS).

A Request for Proposal (RFP) for a Contact Centre Solution was issued on November 24, 2009 and closed on January 15, 2010. The project team is

reviewing the RFP responses, checking references and will invite one or more responders to make presentations before making a decision.

Once the new Contact Centre solution is selected, ITS will then implement the new Contact Centre solution in phases beginning with training, design, installation and an ITS pilot.

Please contact Mona Brennan-Coles at ext.82510 or mona@uwo.ca if you have any questions.

ITS Survey Tool

Gerard Stafleu <gerard@uwo.ca>

The ITS Survey Tool (see http://www.uwo.ca/its/software/survey_tool.html) can be used by anyone wanting to make their own surveys. All you and your subjects need is a web browser.

It is now possible to login to the Survey Tool at <https://rabbit.vm.its.uwo.ca/Surveys/default.aspx?type=adminLogin> with your Western username and password and begin to create your own survey. The Help menu on the side (see image below) provides comprehensive support.

Questions in the survey tool can use Radio Buttons, Check Boxes, Text Boxes, and Date Boxes. You can also do some simple analysis with the tool. This includes, bar graphs and displaying the answers to selected text-type questions.

ITS Survey Tool: New Survey Page

Helping Hands Award

Merran Neville <mneville@uwo.ca>



The Helping Hands Awards were established by Gitta Kulczycki (Vice-President - Resources & Operations) in Fall 2008. Five awards were given initially and every six months the five current holders of the award select a new recipient. At the six monthly retreat of Resources and Operations, individuals receiving the award are recognized.

In the past year, ITS staff member Mark Myrick received the award and he in turn nominated Aron Downes to receive this award in October '09. Congratulations to both for the recognition they have received for providing excellent customer service to the people they support.



Mark Myric and Aron Downes

Instructional Support Team News

Merran Neville <mneville@uwo.ca>

Managing Grades

Final grades can now be submitted from WebCT OWL to the Office of the Registrar. Many half-term courses successfully submitted final grades using this tool in December. Training sessions were offered to administrative staff to familiarize them with this new process for marks submission. The tool will be available for final grade submissions in April and it is hoped that by the summer of 2010 all departments will be submitting final grades to the Office of the Registrar using OWL.

A new section has been added to the ITRC website to provide information about managing grades with OWL: <http://itrc.uwo.ca/grades/> This section centralizes existing documentation and includes a new document specifically for instructors and staff who have never used OWL.

Turnitin GradeMark Option

GradeMark is an option currently available in Turnitin. **However, this option, which has been available during the Fall Term, was on trial and the University has not purchased it.** For this reason, it could be withdrawn at any time by Turnitin. This is a cautionary message for instructors who are using this option.

ITRC Project Proposals

The Instructional Technology Resource Centre (ITRC) is a multi-media support facility for faculty who wish to integrate technology into their courses. Project proposals are accepted year-round for the development of computer-based instructional material and there is **no charge** for these academic instructional projects. Once a project is accepted, an ITRC student consultant is assigned to the project and they provide the technical expertise required for the creation of learning materials. On page 7, Stuart Thompson, an ITRC student consultant, describes the Anatomy and Cell Biology Slidebox project he worked on.

If you have a project proposal, please contact the ITRC either by email to itrc@uwo.ca or phone 519-661-5513, ext.85513. We will arrange a meeting with you to discuss your project.

ITRC Project: Anatomy and Cell Biology Slidebox Project

Stuart Thompson <itrc@uwo.ca>

Computer technology is used in classrooms across campus to modernize student learning, and several ITRC projects have helped to revolutionize how students interact with the human body; including 3D models of certain body parts and interactive explanations for internal body mechanics. Recently, ITRC student consultant, Stuart Thompson, integrated slides of the human body into the interactive Slidebox project, which allows students to navigate through high-resolution slides of human tissue - like Google Maps for the body.

Michele Barbeau, a course coordinator in Anatomy and Cell Biology, came to the ITRC with a large database of high resolution slides. They were scanned last summer using ScanScope, a precision digital slide scanner belonging to the Department of Pathology. (ScanScope was funded through an Instructional Innovation and Development Grant (IIDF) and the grant holders were Dr. Marjorie Johnson and Dr. Candace Gibson.) The slides were already available in dedicated labs that students used on their own time but renovations to the Medical Sciences Building moved the labs to shared space, making it harder for students to access the slides for studying. The solution was to integrate the slides online using a dedicated website and linking through the course's WebCT OWL area. This would allow students 24-hour access to the slides while letting professors add accompanying text explanations next to specific slides.

There were several older integration designs already in place. One original layout used frames to present text explanations alongside high resolution slides. However, frames made the site difficult to navigate, often mismatching the accompanying text

with the slide being used. Another design used tables and required opening the slides in a new window, making the accompanying text impossible to read.

The ITRC developed a new interactive solution to pair slides with text explanations. Using jQuery, a version of Javascript, we embedded all the slides on a single page. Each slide is placed in a row with its accompanying text explanation. Rather than clicking a slide and opening a clunky frame, students can now "expand" an image of a slide to load the high resolution version in the same window. They are also presented with options to enable a full-screen mode or "minimize" the window.

We also developed a logo for the Slidebox project (which can be viewed on the website) using a portion of scanned tissue and "rasterizing" the image, making single-coloured pixels. These pixels were expanded and arranged in a curve, demonstrating how the Slidebox takes many small pixels to form a high-resolution graphic. A reorganized index page makes navigating between slide categories easier. This theme and logo was also used in an updated WebCT OWL area, which also received some modern icons. Links to the Slidebox project were provided so students could easily navigate from the Western-hosted WebCT OWL course area to the offsite Slidebox area without any interruption in their learning.

"Now with their slide collection digitized, the students can have access to the slides wherever they have an internet connection which makes it much easier to study for the practical exams," Michele Barbeau explained. "We are also in the process of developing a fully online version of the course, which will include a laboratory component."

The new course will be offered in summer 2010 and again in the fall/winter term through Distance Studies. Michele Barbeau and Dr. Kem Rogers from Anatomy and Cell Biology have already contacted the ITRC to help develop this project.

The new interactive site can be viewed at
<http://slidebox.uwo.ca/histology/redesign/index.html>

Stuart Thompson joined the ITRC in May 2009 and worked on this project during the summer 2009, in time for the Slidebox to be used in September. Stuart is graduating in the spring with an honours specialization in MIT.

Information about the ITRC student consultants is available at <http://itrc.uwo.ca/studentConsultants.html>