OFFICE OF INFORMATION TECHNOLOGIES

OIT

NDWorks

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Collaborative Services at ND

Google update

Since moving faculty and staff email accounts from Exchange to Gmail and Google Calendar in June 2014, the Google service has managed a substantial amount of information and email handling for faculty and staff members. Take a closer look at some of the recent Google statistics on the right.

With the move to Gmail, the OIT Help Desk is averaging 44 percent fewer support cases about email and calendaring when compared to Outlook and Exchange.

We have gathered some valuable information, including some additional features and handy tips to help you get the most out of your Gmail account, Google Calendar and other Google services.

DID YOU KNOW THAT ND FACULTY AND STAFF HAVE:

STORAGE FACTS

5.7 million files stored in Google Drive

900,000 files that are shared

EMAIL FACTS

37 Terabytes Total email storage

An average of **208,000 emails** per day are sent and received

An average of **115,000 emails** are received per day

An average of **69,000 emails** are sent internally per day

An average of **24,000 emails** are sent out per day

Get productive with your inbox

Email is an important part of both our professional and personal lives. Many of us rely on email to communicate with colleagues and friends, send and receive critical information, and manage our daily work.

Due to the daily volume of email, keeping up with it can be a challenge. At times, the more we use email, the more we dislike it. It's a tricky relationship. As with any relationship, there are things you can do to improve it.

Start with your inbox

Your inbox should simply be the place where emails come in—not where they stay.

Keep your inbox clean

Decide upon an action for each email, and process them quickly by using keyboard shortcuts. Do you need to do something with the email?

If so, add it to a to-do list so it will move it out of your inbox. And it is an easy way to keep track of your priorities each day.

If nothing further is needed with the email, determine whether you need keep it or delete it. If you need to keep the message, don't let it linger in your inbox. You can archive the message so it stays in Gmail, but not in your inbox. Use search, labels or stars to help you find the message later.

Learn the secrets of Gmail search

If you need to locate an email quickly, you can search in a variety of ways, including by name in the "From" or "To" field, subject or even words in the email.

Schedule time to check Gmail during the day

Finally, think about how much time you spend per day with email. Does the amount of time you spend with it take time away from completing your assignments and achieving your goals? If so, you may want to check your email only a few times each day and keep it closed while you work on other priorities.

Rebekah Go DeLine
Program Coordinator
ESTEEM Program

"Over the last six months, I have grown to utilize and appreciate Google functions more with time. I have 'canned' responses for the many form letters I send out each week. I create a Google form to manage event RSVPs. I track and share data through Google Sheets so that I don't confuse myself (or my colleagues) with the umpteenth version of a spreadsheet. I recently added the Drive App to my cell phone, so I can check on responses from anywhere. It's a tad bit addictive."

Josh Stowe
Digital + Social Media Projects
Notre Dame Alumni Association

"Since ND switched to Google, I've really come to appreciate the cultural change of moving campus onto this platform. My office uses Google Drive extensively to collaborate and plan ahead for big events, including Reunion and Football Fridays at the Eck. What used to be a chore (updating an Excel spreadsheet or a Word document and emailing it back and forth among multiple colleagues) is now simple, instantaneous and hassle-free. It's great to have tools that support the way we work now."

Julie Logue
Administrative Assistant
Department of Romance Languages and Literatures

"We used to have students lined up down the hall waiting for advising appointments. We spent hours each day scheduling these, managing calendars and trying to keep up with cancellations or no-shows. Then we discovered appointment slots in Google Calendar. Since then, our faculty, staff and students are much happier. We have better information and it's much more efficient for everyone involved. As my colleague Linda Rule put it, Google Calendar has 'totally changed the atmosphere in our office, less hectic and more relaxed.'"
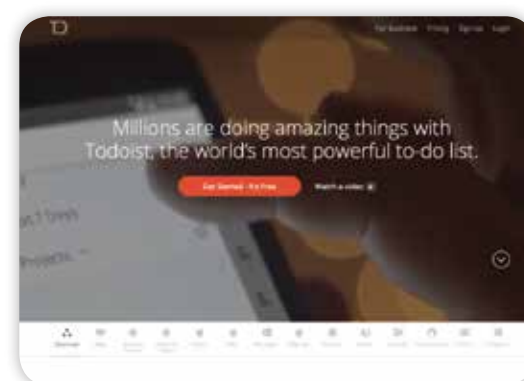
A Better To-Do List

*Gmail has a Tasks feature you can use as a to-do list. However, the University has approved a free to-do list entitled **Todoist.com**. It easily integrates with Gmail, and offers apps for your mobile device. Additional premium features are available at a fee.*

Google update (Continued from Page OIT1.)

Bulk Email: Making the right choice

BULK EMAIL OPTIONS	MASS MAILING	EMAIL MARKETING	GMAIL
Service	Google Groups or LISTSERV	Emma or MailChimp	Yet Another Mail Merge
Simple & Fast	✔	✖	✔
Personalization	✖	✔	✔
Customized Design	✖	✔	✖
Analytics (e.g., Open Click Rates)	✖	✔	✖
Free	✔	✖	✔

When it comes to sending bulk email, there are many tools from which to choose. The chart on the left can help you determine which tool is right for you, based on your audience, timeframe and content specifications.

You can find out more information about these tools here:

- Google Groups: **ntrda.me/googlegroups**
- LISTSERV: **listserv.nd.edu**
- Emma: **myemma.com/email-marketing-solutions/universities**
- MailChimp: **mailchimp.com/**
- Gmail Mail Merge: **ntrda.me/mailmerge**

Google Groups

Google Groups is a reliable, no-hassle collaboration tool. It provides an efficient way to communicate with the whole group at once, whether you are sending email, creating meeting invitations or sharing documents. Plus, it has many benefits for functional roles that transition frequently, as well as departments and teams of any size.

Sending an email to a Google Group is simple. It works just like an LISTSERV list. There are many options for communication for each group, including list moderation and topic management.

To request a Google Group, the group administrator must contact the OIT Help Desk. The membership is automatically managed from the OIT Help Desk. Whenever a new employee joins or leaves a department, the list is automatically updated. Once added to the group, new members can review documents in the group's folder.

Additionally, any group member can invite the entire group to a calendar event, and the event will conveniently show up on everyone's calendar. If someone joins the group after the invitation is sent, the event will automatically be added to his/her calendar.

Teams can share Google Calendars, Google Drive folders and documents to Google Groups as well. All members of the team will have access to the resources and information in the team folder on Drive. When a person leaves the team, he/she will lose access to that folder.

To find out more, go to **ntrda.me/googlegroups** or contact the OIT Help Desk for a consultation at 631-8111, **oithelp@nd.edu** or chat online at **help.nd.edu**.

Popular Add-ons and Extensions for Google

What other tools does Google offer? Just take a closer look at these new add-ons and extensions. They have been reviewed and approved for campus use.

With Boomerang for Gmail, you can:
- Schedule a reminder to follow up on an email, even if nobody replies
- Send an email at a scheduled time/date
- Archive an email and bring it back unread later
- And much more

Google Drive for Mac/PC/iOS offers these great benefits:
- Access any of your files any time on any device
- Quickly and easily browse to your Drive files on your desktop
- Automatically backup your files to your Drive account
- With the mobile app, take a photo and Drive will store is as a PDF

Email Microsoft Office documents through Gmail
This tool tells your Windows programs to use Gmail for emails from local programs. Once installed, you can email documents using Gmail:
- Microsoft Office 2013: File > Share -> Email > Send as attachment
- Microsoft Office 2010 or older: File > Send To > Mail Recipient (as attachment)
- Adobe Acrobat Reader: File > Attach to email

Send from Gmail by Google
- Gmail will open a new message when you click on an email address outside of Gmail
- Click on the icon in the upper right corner to quickly send any web page link via email

To see more approved extensions and add-ons, or request a new one, go to **ntrda.me/ApprovedGoogleAddins**

Ensure Meeting Invitation Success

Are the people you invite to meetings unable to accept your meeting invitations? If so, you need to take a closer at your contact list.

Each person at Notre Dame has multiple email addresses (e.g., John Smith has **jsmith@nd.edu, John.Smith.1@nd.edu,** and **smith.1@nd.edu).** John's preferred address is **jsmith@nd.edu** (which can be specified at **eds.nd.edu).**

Notre Dame publishes the preferred email address in Google. As a result, Google Calendar does not recognize non-preferred email addresses. To avoid this issue, be sure to invite people by using preferred email addresses.

If you have email addresses in your contacts list that Google Calendar does not recognize, there is a tool that can help! Contacts Cleaner can safely remove non-preferred email addresses from your contacts. This tool is easy to use and you can run it yourself.

For additional information, go to: **contactscleaner.nd.edu.**

New Box Add-On Feature

Box has introduced an add-on feature that allows you to edit or create files directly on Box. Box Edit is designed for all file types, browsers and platforms. It uses the default application installed on your computer to edit or create simple and centralized content, such as:

- .docx files open in Microsoft Word
- .pptx files open in Microsoft PowerPoint
- .xlsx files open in Excel, images open in Photoshop (if installed)
- CAD files open in AutoCAD

If you have Office installed, you can open and edit any Word, Excel, PowerPoint, etc. document from within **box.nd.edu** and edit the file without having to download, make changes and then upload the file. Other file types can also be edited as long as you have the software application that allows you to add or edit that file type. You also have the option of locking the file before it is opened for editing.

For more information on Box Edit, go to: **ntrda.me/boxedit**

Collaboration Services Help

If you need help with any Google (Gmail, Calendar, Drive, Contacts, Groups, etc.) or Box services, there are a variety of ways to access help. The OIT has an extensive array of options for getting help, as well as learning to use Box and Google services successfully. This information is also regularly updated. Below are the links to this valuable information:

- **Overall Help page for Box:** oithelp.nd.edu/shared-file-space/box
- **Overall Help page for Google:** oithelp.nd.edu/gmail-and-google-apps
- **OIT Help Desk contact information:** 574-631-8111, oithelp@nd.edu or chat help.nd.edu
- **Google training classes** for Gmail, Calendar, and Drive.
- **Box training class:** A new Box introductory class that focuses on file sharing and storage will be offered this spring.
- **Departmental Forum:** If you want to arrange specialized training on using Google or Box services for your team or entire department, you can schedule a departmental forum. Our Google and Box product management team can tailor the session around your specific needs. To schedule a forum, go to: **ntrda.me/googleboxforum.**

For information, go to: **oit.nd.edu/training-classes.**

Digital COMPANION AVAILABLE

Instead of printing web addresses, a digital companion to this issue is available. You can find all of the links, resources, and tools mentioned in this OIT insert at: **oit.nd.edu/NDWorks**

Office of Information Technologies... at your service

OIT Help Desk

The OIT Help Desk provides support to all members of the Notre Dame community. You can get assistance with computer issues (Windows and Macintosh operating systems) and desktop applications supported by OIT and OIT managed services, including: ND Google Apps, Wireless and wired networks, Shared file space (CorpFS and NetFile), ND VPN and PrintND.

Office: 128 DeBartolo Hall
Phone: 574-631-6548
Email: oithelp@nd.edu
Chat: help.nd.edu
Web: assyst.nd.edu
Website: oithelp.nd.edu

Academic Year Hours

Monday through Thursday, 8 a.m. to 8 p.m. (Closed Wednesdays from noon to 1:30 p.m.) Friday, 8 a.m. to 5 p.m., and Sunday 3 to 8 p.m.

ND Computer Service Center

The ND Computer Service Center offers computer repair and rental services right on campus. As an authorized provider for warranty repairs on Apple, Dell and Lenovo computers, it can provide non-warranty service on these and other computer brands, as well as most HP monochrome laser printers.

If you need to rent a computer while yours in getting repaired or traveling out of the country, you can do so at the Computer Service Center. You can choose from a variety of Windows and Mac laptops available for rent. Since configurations can vary, please provide your hardware and software needs when you make your reservation.

Office: 102 IT Center (Bldg. #1061)
Monday-Friday, 8 a.m. to 5 p.m.
Phone: 574-631-7477
Email: oit.service@nd.edu
Website: oit.nd.edu/service

IT service status at your fingertips

The OIT has a variety of different ways to inform you about current IT service status. Choose your preferred method or service to get a quick update on Notre Dame IT services:

- **OIT website:** The status of the 5 major IT services for campus are tracked on the dashboard using a graphic green, yellow red indicator at **oit.nd.edu.**
- **Twitter:** @OITatND
- **Facebook:** facebook.com/oithelpdesk
- **Google+:** oit.nd.edu/gplus

A subscription portal that allows you to receive messages by email, text messaging, or both. To subscribe, visit **ndoit.bbcportal.com.** You will need to create your own account because the service does not currently use your Notre Dame NetID and password.

OIT HELP DESK FASCINATING FACTS FOR 2014

26,606
total phone calls received

>70%
of all calls waited less than 30 seconds
to speak to a Help Desk consultant.

25,812
total cases resolved

- *62% of those individuals needing help called by phone*
- *15% sent an email*
- *13% visited us in person (walk-in)*
- *More than 75% of the total cases were resolved within 1 hour or less.*

Top 5 questions or issues
Password ▪ Gmail & Google Apps ▪ Sakai ▪ VoIP phones ▪ Windows 7

Sakai at Notre Dame

Sakai is a learning management system providing methods and tools for the practice of learning, teaching, research and collaboration used at Notre Dame and more than 350 colleges and universities around the world.

Since Sakai was launched in 2012, the number of faculty and students taking advantage of its benefits continues to grow. Last fall, 1,264 faculty members published coursework in Sakai. Over 10,600 students downloaded content; 6,100 submitted assignments; and 5,200 took some kind of quiz or test in Sakai.

Learning Opportunities and Resources

The Sakai team offers resources and learning opportunities for individuals at any level of Sakai--from beginners through those considering course design using more advanced methodologies and techniques.

The team also works closely with the Kaneb Center for Teaching and Learning, the Hesburgh Libraries and the Office of Digital Learning. Through these partnerships, additional opportunities for ongoing professional growth in digital teaching and learning methods and tools are available.

A palette of native Sakai tools,

as well as other websites and tools (including Library Reserves) can be used to customize any course. Popular tools include Piazza, an anonymous forums tool, and Kaltura Media Gallery, a video platform to manage, publish, distribute and analyze media content.

Sakai Lunch & Learn Programs

A series of casual meetings, with lunch provided, is held during the academic year. It features faculty presenters who discuss their success with Sakai, and how it has enhanced their course materials. Topics have included customizing a course site, grading strategies and assessment delivery. The schedule is available at **ntrda.me/sakailearning.**

Sakai Self-Paced Learning Opportunities

Sakai Workshop Study Guides provide more information about Sakai and its most popular tools. These self-paced guides are designed to accompany the basic Sakai workshops, and include instructions for tool set-up and illustrate common use scenarios. Sakai Workshop Study Guides can be found under the "Learning More" tab at **sakai. nd.edu.**

A new, self-paced Sakai site called **Sakai Badging** was introduced in

cooperation with Longsight, the commercial affiliate that hosts open source Sakai for Notre Dame.

By joining the site and completing a series of "missions," you can gain valuable knowledge at Sakai Admin, Sakai Instructor or Sakai Trainer levels. In recognition of your achievements, you can claim a **cred.ly badge.** Find out how to join the Sakai Badging site by following instructions at **ntrda.me/ Sakaijoinsite.**

Sakai-iatry: ND User Group Support

The Sakai faculty user group is called **Sakai-iatry.** This opt-in group offers many benefits for Sakai users. Gain insights into Sakai through the sharing of tips and tricks; receive advance notification of Sakai news; and gain access to a specialized Sakai-iatry course site with many more resources. Click "Join Sakai User Group" at **sakai.nd.edu** to join.

Individualized Departmental Instruction

From presenting content in a different way to integrating new Sakai tools, the Sakai team can set up a training session tailored to your department's needs. For additional information or to request departmental training, contact the Sakai team at: **Sakai_Team@nd.edu.**

OIT Training Classes

Basic Gmail (new users)
Thu Mar 5, 9:00–11:00 a.m., IT Center B003
Tue Apr 14, 1:00–3:00 p.m., IT Center B003
Fri May 8, 9:00–11:00 a.m., IT Center B003

Gmail Revisited (current users)
Mon Mar 9, 2:00–4:00 p.m., IT Center B003

Using Contacts in Google
Thu Apr 23, 9:00–10:30 a.m. IT Center B003

Basic Google Calendar (new users)
Thu Mar 26, 10:00–11:30 a.m., IT Center B003
Wed Apr 22, 2:00–3:30 p.m., IT Center B003
Thu May 21, 9:30–11:00 a.m., IT Center B003

Google Calendar Revisited (current users)
Fri Mar 13, 10:00–11:30 a.m., IT Center B003

Google Drive: File Sharing and Apps
Tue Mar 24, 9:00 a.m.–noon, IT Center B001
Thu Apr 30, 1:30–4:30 p.m., IT Center B001

Box: File Sharing and Storage
Tue Mar 17, 1:30–3:30 p.m., IT Center B003
Thu May 7, 9:30–11:30 a.m., IT Center B001

Form and Survey Tools at Notre Dame
Tue Apr 7, 1:30–4:30 p.m., IT Center B001

Acrobat XI: Basic PDF Creation & Manipulation
Fri Mar 20, 8:30–11:30 a.m., IT Center B003

InDesign CC: Basic Document Creation
Tue Apr 14, 8:30 a.m.–noon, IT Center B003

InDesign CC: Intermediate Document Creation
Thu Apr 9, 8:30 a.m.–noon, IT Center B003

InDesign CC: Cool Stuff
Mon Mar 16, 2:00–4:00 p.m., IT Center B003

InDesign CC: More Cool Stuff
Thu May 7, 9:00–11:00 a.m., IT Center B003

Photoshop CC: Basic Photo Manipulation
Mon Apr 27, 1:30–4:00 p.m., IT Center B003

Photoshop CC: Basic Layers & Text
Thu Mar 19, 8:30–11:30 a.m., IT Center B003
Wed May 13, 1:30–4:30 p.m., IT Center B003

Photoshop CC: Resizing Photos
Tue May 5, 1:30–4:30 p.m., IT Center B003

Excel 2013: Basic
W/F Apr 8 & 10, 8:30 a.m.–noon, IT Center B003

Excel 2013: Basic Automation Using Macros
Fri Apr 24, 9:00–11:00 a.m., IT Center B001

Excel 2013: Charting
Mon Apr 13, 1:00–4:30 p.m., IT Center B003

Excel 2013: More Functions & Analysis
Mon Apr 27, 1:00–4:30 p.m., IT Center B001

Excel 2013: PivotTables
Wed Mar 4, 2:00–4:00 p.m., IT Center B003
Wed Apr 22, 9:00–11:00 a.m., IT Center B001

Excel 2013: Use as a Database
Mon Mar 30, 1:30–5:00 p.m., IT Center B001

Mail Merge Using Office 2013
(register through endeavor.nd.edu)
Wed Mar 18, 1:15–2:45 p.m., IT Center B001
Fri May 1, 8:30–10:00 a.m., IT Center B003

Mail Merge Using Google and Gmail
Wed Mar 18, 3:00–4:00 p.m., IT Center B001
Fri May 1, 10:15–11:15 a.m., IT Center B003

PowerPoint 2013
Tue Mar 17, 8:30 a.m.–noon, IT Center B003

Word 2013: Basic
Tue Mar 3, 8:30–11:30 a.m., IT Center B003

Software Licensing
Wed Apr 15, 9:00–10:00 a.m., IT Center B003
Wed May 20, 9:00–10:00 a.m., IT Center B003

Lunch & Learn: Presentations with Prezi
Tue Mar 24, Noon –1:00 p.m., Notre Dame Room, LaFortune

Standard and specialized training options also available

The OIT Training and Transition group offers a variety of technical training opportunities for faculty, staff, and students which include:

- **Instructor-led classes**
- **Special request training**
- **Online training**
- **Training consultation**
- **OIT training labs**

For more information, contact the OIT Training Office.

OIT Training Office
B004 IT Center
Phone: 574-631-7227
Email: training@nd.edu
Website: oit.nd.edu/training-classes

A great desktop assistant: Your VoIP phone

Did you know your VoIP phone can do more than a standard phone can do? It is a great desktop assistant, and has many features that can help make your work life easier.

Take a closer look at these great features:

Reliable ND Directory: Use the ND White Pages menu on your phone to easily find a person's phone number--even with a partial first or last name. You can also search by phone number if you just want to confirm how to spell someone's name. Details at: **ntrda.me/ndwhitepages.**

Make Conference Calls: This convenient feature allows up to set up a conference call for one host and up to seven attendees. The host has the ability to view attendee list during the call. Standard long-distance charges apply. Details at: **ntrda.me/1x1Inhl.**

Listen To Voicemail Messages in Your Email: Set up your VoIP phone to deliver voicemail messages to your email inbox as a .wav file. It is playable from most computers and mobile devices by default. If you have a smartphone, you can listen to your voicemail without calling in or going to your office to retrieve the messages from your desk phone.

To add this feature, complete a Unified Messaging Activation Request Form located at **ntrda.me/unifiedmsg.**

Send a Voicemail Message Instead of Email: Using your VoIP phone, it's easy to send a message via voicemail rather than an email. Just dial * (asterisk) followed by the 5-digit extension. Your call will go directly into the person's voicemail.

Speed Dial Feature: You can create up to 99 personalized speed dial listings on your VoIP phone. Details at **ntrda.me/phonefeatures.**

Don't Miss Phone Calls: Set up your VoIP phone to simultaneously ring your cell phone or other off-campus phone when you're expecting an important call. The Single Number Reach feature also allows you to move a call from your desk phone to a remote destination phone (like a cell phone), without alerting the caller you have done so. To add this feature, you must complete a Single Number Reach Request Form located at **ntrda.me/snr.**

Divert Your Calls When Busy: When you don't have time to take a call, divert it—just locate the "iDivert" feature at the bottom of your phone screen. If you don't see it, press the "More" button until it appears. When you press the iDivert button, the incoming call will go directly to your voicemail.

Bypass A Voicemail Greeting: When you call someone, you can save time when leaving a voicemail message by bypassing his/her greeting. Press # when the greeting begins and the recorded greeting will stop. Recording will start immediately after the greeting is stopped. You will NOT hear a tone sound to prompt you to begin speaking.

Colorful ND Images Available for Phone Background: There are several iconic Notre Dame images available as background images for your VoIP phone. You can choose your favorite image, and change it as often as you like. Details at: **ntrda.me/voipbkgd**

For additional information on VoIP telephone features and voicemail, go to: **ntrda.me/voipguides**

ND Mobile App continues to grow

Launched in April 2014, the ND Mobile App has seen tremendous success on campus, with over 18,000 downloads as of January 2015. The app includes features for virtually everyone who is on campus and visits the campus. However, there is still much more to come. The OIT will continue to develop more modules and special features.

"Building and maintaining a mobile app is a unique challenge," said Matt Willmore, mobileND program manager. "Not only is the technology landscape evolving very quickly, but those who are using the app adopt the new features very quickly, and then request additional features. Therefore, we are continually working to improve the app experience for everyone."

According to Willmore, several new features are planned in the coming months for the ND Mobile App:

- **Sakai:** Students will be able to access their Sakai assignments, resources and even grades right from the ND Mobile App.

- **Transit:** You will be able to request a ride from O'SNAP (formerly SafeRide). You can select your pick-up and drop-off locations, and the module will show you exactly where to meet the O'SNAP driver at your location.

- **Indoor Building Maps:** This module will allow you to view the floorplan of popular buildings, locate rooms and even find the nearest restroom, elevator or fire extinguisher.

One of the reasons the ND Mobile App is so successful is the hard work from a talented pool of student developers. For example, the Weather and Webcams modules were entirely developed by student employees, and the upcoming Transit module is also being built by students.

"Using student employees has been an incredible gift to us," said Willmore. "These students can apply their talent to a real-world problem, and gain the experience of building something they can use every day. It is a unique opportunity to work so closely with your own users in this way."

Currently, there are three students working on the ND Mobile App: Waleed Johnson, a fifth-year senior with a dual major in computer engineering and studio art; Zach Waterson and Kyle Koser are both juniors in computer science. Willmore stated that he is always looking for talented students to work with the MobileND team, and considers them valuable contributors to the success of the app.

You can learn more about MobileND at **mobile.nd.edu.** You can also download the ND Mobile app from the iOS App Store or Google Play Store, or access it at **m.nd.edu.**

OIT Information Security: Computer Hacking

Don't Be Caught Off-Guard

Target, Home Depot, AT&T and Sony. What do they have in common? Their computer networks were hacked. As a result, their customers' Social Security numbers were exposed, credit card numbers may have been stolen, and millions of video consoles stopped working.

Even though these companies have several layers of defenses in place to prevent being hacked, it is very difficult to stop these breaches. One of the most important defenses against this type of attack is to be an informed and vigilant user.

How do hackers get in?

With hundreds or thousands of people in an organization, it only takes a single computer to become infected with a computer virus. In spite of all the safeguards and layers of defenses, the virus provides a means into company's computer system. Then, the hacker can manipulate the network from the inside, and take control long enough to steal private data.

Since everyone is a potential victim of computer hacking, it is important to recognize the signs of an infected machine, and know what you need to do to correct it promptly.

How to keep your computer safe

All computer programs have flaws. To gain unauthorized access to your computer or a computer system, hackers write small programs (called viruses) to take advantage of these flaws.

When a flaw is discovered, software companies will rewrite their software to fix it. These fixes are called software updates or patches.

Some viruses take advantage of program flaws that haven't been fixed. These viruses often have a recognizable pattern. To protect your computer against viruses, follow these steps:

- **Install software updates as soon as possible.** University-owned computers are set up to apply these software updates automatically. Be sure to configure your personal computer, phone or tablet to automatically install updates as they become available.
- **Install anti-virus software like Sophos for Mac or Microsoft EndPoint Protection or Security Essentials for Windows.** It can recognize virus patterns and delete it or lock it away where it can't harm your computer. Keep your anti-virus programs updated too. Note: Viruses are starting to appear for Android and Apple phones, and tablets. Install an anti-virus program on those devices too.
- **Install software from established vendors.** There an abundance of free software that is easy to download and install. Any program can harbor a nasty virus. At work, check with your departmental IT support staff before installing software. The OIT Software Downloads page is a great resource for accessing University-approved software. The operating system on your personal computer will alert you if the software you want to download is not on a standard list of reputable publishers, and could be harmful to install.

How can tell if your computer has a virus? If you notice one or more of these issues when working on your computer, contact your departmental IT support staff to check it out:

- Your computer has slower than normal **responsiveness**.
- You see a new **toolbar** in your browser that you didn't install.
- **Pop-up windows** begin to appear, such as: "Clean up your computer;" or "You have 25 viruses, do you want to clean them up?" or "Make your computer run faster!"
- You are unable to log on to your email, social media or other accounts with your existing password and you didn't request a password reset. It is important to change passwords on accounts you can still login to and immediately contact your other service providers for help in getting your password back.
- Friends are receiving **spam** email from your email address that you didn't send. Be sure to run your anti-virus program, or have your machine checked. You should also change your email password.
- **Anti-virus software** is not running or refuses to run. Not only does this indicate you are already infected, but you are unprotected from new viruses as well.

It's impossible to avoid all computer viruses. But by following these tips you keep your University and personal data protected. For additional information on staying secure, go to **oithelp.nd.edu/information-security/faq.**

Digital Signs at ND

As you walk through campus buildings, you'll see a wide variety of digital signs. Due to the popularity of this promotional form, a team of representatives from Procurement, Office of Information Technologies (OIT) and other campus departments was formed to do a thorough assessment of this service.

As a result, a standardized system has been developed for the purchase and ordering of digital signs at Notre Dame. The University's standard digital signage service through Industry Weapon is now available. By using this service, you have these great benefits:

- Easy to use
- Access to support if you have questions or need additional training
- Security feature allows you full control of the sign content
- Accepts a variety of media including video, RSS feeds, social media, text, images, HTML, Excel, PowerPoint, PDFs, maps and weather
- Automatic feed for campus emergency or NDAlert information

If you already have a digital sign, you can take advantage of the Industry Weapon digital sign service by converting it. The OIT Digital Signage team will need to verify compatibility.

You can find additional information, including sizes, costs, and installation and access requirements so you can choose the digital sign that meets your needs at **oithelp.nd.edu/digital-signs.**