

## Everything You Want to Know About Technology but are Afraid (or Don't Know) to Ask

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## Goals

- Understand why technology is important to SPs
- Understand major technology trends
- Learn helpful (and free!) programs
- Improve computing safety knowledge

## AGENDA

- Why Technology?
- History/Definitions
- Free Programs/Services
- Security
- OSPA Technology

## Why Technology?

- NASP - *Model for Comprehensive and Integrated School Psychological Services*
- NASP's official policy regarding the delivery of school psychological services



## Why Technology?

- Practices That Permeate All Aspects of Service Delivery
  - Domain 1: Data-Based Decision Making and Accountability
 

"As part of a systematic and comprehensive process of effective decision making and problem solving that permeates all aspects of service delivery, school psychologists demonstrate skills to use... technology resources and apply results to design, implement, and evaluate response to services and programs."
  - Ex. School psychologists use information and technology resources to enhance data collection and decision making.

## Why Technology?

- Student-Level Services
  - Domain 3: Interventions and Instructional Support to Develop Academic Skills
 

"School psychologists use information and assistive technology resources to enhance students' cognitive and academic skills."

## Why Technology?

- Systems-Level Services
  - Domain 5: School-Wide Practices to Promote Learning
 

“School psychologists have knowledge of... technology resources... that promote learning and mental health.”

## Why Technology?

- Foundations of School Psychological Service Delivery
  - Domain 9: Research and Program Evaluation
 

“School psychologists demonstrate skills to evaluate and apply research as a foundation for service delivery and, in collaboration with others, use various techniques and technology resources for data collection, measurement, and analysis to support effective practices at the individual, group, and/or systems levels.”
  - Example: School psychologists incorporate various techniques for data collection, measurement, analysis, accountability, and use of technology resources in evaluation of services at the individual, group, and/or systems levels.

## Why Technology?

- Foundations of School Psychological Service Delivery
  - Domain 10: Legal, Ethical, and Professional Practice
 

“School psychologists...apply professional work characteristics needed for effective practice as school psychologists, including ...technology skills.”

## Why Technology?

### Jeff's Techno-Centric Summary & Interpretation:

- Technology is a professional work characteristic *needed* for effective practice
- School Psychologists use tech to:
  - design, implement, and evaluate programs
  - enhance cognitive and academic skills
  - promote learning and mental health
  - support effective practices at the individual, group, and/or systems levels

## Why Technology?

- Best Practices V
- Section VIII. Technological Applications
  - Best Practices in Digital Technology Usage by Data-Driven School Psychologists
  - Best Practices in Using Technology for Data-Based Decision Making
  - Best Practices in Technology



## Opposition to Technology? Historical Perspective

The Luddites were a social movement of 19th-century English textile artisans who protested – often by destroying mechanized looms – against the changes produced by the Industrial Revolution, which they felt were leaving them without work and changing their way of life. The movement was named after General Ned Ludd or King Ludd, a mythical figure who, like Robin Hood, was reputed to live in Sherwood Forest.



(<http://en.wikipedia.org/wiki/Luddite>)

### Opposition to Technology? Historical Perspective

- **Neo-Luddism** is a personal world view opposing any modern technology that displaces workers and increases unemployment. Its name is based on the historical legacy of the British Luddites which were active between 1811 and 1816. Neo-Luddism includes the critical examination of the effects technology has on individuals and communities.
- **Reform Luddism** is an offshoot of Neo-Luddism and represents a personal world view skeptical of modern technology and critical of its many purported benefits.

(<http://en.wikipedia.org/wiki/Neo-Luddism>)

### Terminology – What is Free?

- Open Source vs. Free software
- Describe two approaches and philosophies towards free software
- Open Source: a development method, source code is publically available and permits users to study, change, improve or distribute the software. Is very often developed in a public, collaborative manner.

### Terminology – What is Free?

- Free Software: social movement, refers to “freedom”, not price. Free to run, study, redistribute, and improve
- Freeware: usually low cost or optional fee but with usage restrictions (Google Chrome, Adobe Flash)
- At the end of the day, regardless of what it is called, much free software is available

### Cloud Computing

- Definition: delivery of computing as a service rather than a product
- Resources, software, and information are provided to computers and other devices as a utility (like the electricity grid) over a network (typically the Internet).

### Cloud Computing - Benefits

- Cost – usually lower
- Maintenance – usually reduced or non-existent for the end user
- Device Independence – more venues from which to access one’s data
- Scalability – pay for what use, easily expandable
- Easier collaboration

### Cloud Computing - Cons

- Accessibility – subject to outages
- Privacy
- Legal issues

### Best (Not So)Free Programs Office Productivity

- Current popular paid suite: Microsoft Office 2010
- Word, PowerPoint, Outlook, Excel, Access, Publisher, OneNote
- - Office Pro 2010: "from \$349.99", Microsoft.com
- Academicsuperstore.com: \$97.95
- JourneyEd.com: \$99.95



### Best (Not So)Free Programs Office Productivity

- Microsoft Office 365
- Software as a Service, "On Demand"
- Online/Cloud-based
- Exchange (email, calendar, contacts)
- Word, PowerPoint, Outlook, Excel, Access, Publisher, OneNote
- Price: from \$6/month/user



### Best Free Programs Office Productivity

- OpenOffice 3 ([www.openoffice.org](http://www.openoffice.org))
- Multiplatform – Windows, Mac, Linux
  - Writer (Word Processing)
  - Calc (Spreadsheet)
  - Impress (Presentations)
  - Base (Database)
  - Draw (Image Creation)



### OpenOffice Writer

- Fully functional
- Can open/save in Microsoft Office format

### OpenOffice Calc

- Fully functional
- Reads .xls or .xlsx files
- Intuitive, easy to learn
- Supports multiple users, collaboration

### OpenOffice Impress

- Use to create multimedia presentations
- Reads .ppt or .pptx files
- Multiple views: Drawing / Outline / Slides / Notes / Handouts

## OpenOffice Base

- Fully featured desktop database management system
- Offers wizards to help users new to database design
- Supports tables, queries, forms and reports
- Has support for Access .accdb files

## LibreOffice 3.4

- Created by group split off from OpenOffice
- Both come from same code base
- Appears to have a quicker development cycle
- LibreOffice on iOS and Android to be completed late 2012 or early 2013.



## Google Docs

- Oldest of the online application suites (2007)
- Cloud-based, "Software as a Service"
- Free (need free account), 1 GB storage free, costs per year are: 20 GB-\$5, 80 GB-\$20, etc. up to 16 TB
- Documents are instantly saved, revision history saved: can revert to previous versions



## Google Docs

- Collaborative:
- ≤ 50 users collaborate on a document at one time
- Optional chat window that allows creator communicate privately with each collaborator
- names of current collaborators appears at the top of screen.



## Google Docs

- Compatibility:
- Runs on browsers: Firefox, Internet Explorer, Safari and Chrome browsers
- Operating systems: Microsoft Windows, Apple OS X, and Linux
- Import files: Most common formats (i.e. MS)
- Export to user's device: ODF, HTML, PDF, RTF, Text, Microsoft Office
- Online templates available



## Google Docs

- Document types:
- Word Processing
- Worksheets
- Presentations
- Drawings
- Fill-in Forms
- Table (Beta)



## Google Docs – Word Processing

- Offers most word processing functions
- Typical formatting options
- Insert images, links, tables, etc.



## Google Docs-Word Processing



## Google Docs – Spreadsheet

- Supports cell formulas typically found in most desktop spreadsheet packages
- Create/insert charts



## Google Docs – Presentations

- Integrates with other Google services
- Easily insert multimedia content
- You Tube videos, Picasa pictures, etc.



## Google Docs – Forms

- Similar to Survey Monkey
- Create forms
- Email forms/auto-collect responses
- Can imbed in a webpage



## Google Docs – Fusion Tables

- Can upload, store, query, and visualize data



## Google Apps for Education

- Core Google Apps for Education suite includes:
- **Gmail:** Email storage and search tools that help your students find information fast and instant messaging from right inside their accounts.
- **Google Calendar:** Students can organize their schedules and share events and calendars with others.
- **Google Talk:** Students can call or send instant messages to their contacts for free anytime, anywhere in the world.

## Google Apps for Education

- **Google Docs:** Share documents, spreadsheets, and presentations. Collaborate in real-time with your team or with your whole school. You can publish final documents to the entire world, too.
- **Google Sites:** Work together to keep related documents, web content and other information in one place, on one site.
- **Google Video for education:** A video hosting and sharing solution that enables schools and other organizations to use video as an effective medium for internal communication and collaboration.

## Google Apps for Education

- Who owns the data that organizations put into Google Apps?
- To put it simply, Google does not own your data. We do not take a position on whether the data belongs to the institution signing up for Apps, or the individual user (that's between the two of you), but we know it doesn't belong to us!
- The data which you put into our systems is yours, and we believe it should stay that way. We think that means three key things.
- We won't share your data with others except as noted in our Privacy Policy.
- We keep your data as long as you require us to keep it.
- Finally, you should be able to take your data with you if you choose to use external services in conjunction with Google Apps or stop using our services altogether.

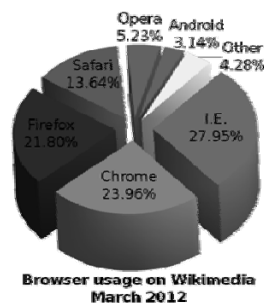
## Google Apps for Education

- How much is Google Apps for Education?
- Google Apps for Education is free. We plan to keep the core offering of Google Apps for Education free. This includes user accounts for future incoming students. As you may know, Google was founded by a research project at Stanford University, and this is just one way we can give back to the educational community.

## Internet Browsers

- MS Internet Explorer
- Firefox
- Chrome
- Opera

## Current Usage



## Internet Explorer

### Pros:

- Most popular browser
- Native to Windows
- Version 9 only works in Win 7
- Decent built-in security/privacy features
- Tab pinning, hardware acceleration
- Some district software may only run with "r"



## Internet Explorer

### Cons:

- Slow
- Difficult to sync bookmarks
- Limited customizability



## Firefox

### Pros:

- Customizable (6000+ add-ons available)
- Fast loading of multimedia in new web standard (HTML5)
- Synchronizable between PCs, Android
- Built-in search box
- Windows, Mac

### Cons:

- Mediocre load on image heavy web pages



## Google Chrome

### Pros:

- Is reportedly most secure browser, separates each tab into it's own process (sandbox)
- Super-fast browsing performance, now with hardware acceleration
- Instant site prediction and loading
- Built-in Flash player and PDF reader
- Synchronize with Android devices
- Windows, Mac



## Google Chrome

### Cons:

- Some district specific software will not run on Chrome



## Opera

### Pros:

- Fast
- Uses compression when on slower connection
- Works on Windows, Mac

### Cons:

- Fewer security options overall





## Web Browsers

Which one should I use:

- Google Chrome – Overall best
- Depends upon personal preference
- Can use more than one
- When installing multiple, determine which will be default



## Cloud Storage

Definition: a model of networked online storage where data is stored in virtualized pools of storage which are generally hosted by third parties

## DropBox

- Storage can be used from folder on computer and/or Dropbox.com
- Files in local folder are immediately uploaded to website
- One account can be tied to Dropbox folder on many devices (work, home, mobile)
- Files can be accessed from Dropbox.com
- Search “DropBox Hacks” for more uses



## DropBox

- Individual folders/files can be shared with invited individuals
- Can selectively sync subfolders/file
- Can “undelete” files for up to 30 days
- 2 GB free, up to 50 GB for \$100/year
- Work on Win, Mac, iOS (free app), Android, Blackberry



## iCloud

- For iOS 5 devices and OS X Lion
- For iPhone, iPad, iPod touch, Mac, or PC
- 5 GB free
- Synchronizes apps, photos, music, emails, contacts, calendars
- Backup i-devices



## Windows Live SkyDrive

- 25 GB free
- Integrates with Windows Live/Hotmail
- Can share with others
- View files from mobile phone
- Can sync files on Win Vista/7 or OS X 10.5 and later with Windows Live Mesh



## Technology for Efficiency

- Minimize repeated tasks
  - Templates – develop “skeleton” reports, IEP, letters
  - Cut and paste
  - Macros
  - Mail Merge – form letters, mass mailing
- Voice Activated Software (Dragon Dictate)



## Text Expanders

- PhraseExpress
- Similar to MS Office autotext
- Programmable snippets, boilerplate
- Can launch programs
- Create emails, manage email signatures
- System-wide spelling prediction
- Works in almost any application



## Password Management

- General recommendation is to have strong passwords on accounts
- Be at least 8 characters in length
- Contain both upper and lowercase alphabetic characters (e.g. A-Z, a-z)
- Have at least one numerical characters (e.g. 0-9)
- Have at least one special character (e.g. ~ ! @ # \$ % ^ & \* ( ) - \_ + =)

## Password Management

Should not:

- Spell a word or series of words that can be found in a standard dictionary
- Spell a word with a number added to the beginning and/or the end
- Be based on any personal information such as user id, family name, pet, birthday, etc.
- Be based on a keyboard pattern (e.g. qwerty) or duplicate characters (e.g. aabbccdd)

## Password Management

Solution:

- Password Safe (free)  
(<http://passwordsafe.sourceforge.net>)
- Encrypted vault
- Opens with a master password
- Stores usernames, websites and URLs
- Has password generator



## Password Management

- Can organize by folders/groups
- Runs off computer or flash drive
- Combine with Dropbox to make available on many devices
- pwSafe – Password Safe for iOS (syncs with DropBox and/or iCloud)



### Data Protection

- TrueCrypt
- Creates an encrypted volume/container on hard drive, flashdrive, etc.
- Uses “master password” to unlock vault
- Unlocked “vault” shows up as another drive in My Computer
- Good for storing sensitive data in Cloud, flash drive, etc



### Data Protection

- Runs on Windows 7/Vista/XP, Mac OS X, and Linux
- Can run off of a flashdrive
- Can be a little tricky to use, good FAQ on website



### Protecting Your Data

#### Avoid physical theft/damage

- Keep electronic devices out of sight and secured when not in use
- Use a Kensington lock when item has to be left in unsecured area for short duration of time
- Use protective cases and storage locations

### Protecting Your Data

#### Avoid Electronic Theft

- Keep operating system up-to-date
- Ensure firewall is enabled (network and device level)
- Use anti-malware programs and keep updated
- Don't open suspect emails/attachments
- Browse Internet safely (Web Of Trust)

### Protecting Your Data

#### Avoid Loss via Backups

- Back up regularly
- Backups should be static and off-site
- Critical data (templates, databases, reports, etc) should be in at least 2 different places

### Protecting Your Data

#### Backup Strategies

- Have continuous/instantaneous backup (i.e.. DropBox)
- Create regular static backups to external media (DVD, flashdrive, USB harddrive)
- Get a schedule (i.e. Friday lunch)

## Protecting Your Data

### Miscellaneous Tips

- Do not keep sole copy of file on external media (flashdrive, USB hard drive)
- Enable "Restore Point" on Windows PC, create restore point before manual installation of programs

## Use Technology Wisely

- Be careful what you post online – if you wouldn't put it in your portfolio, don't post it
- Put your name in several search engines to see what might be posted (i.e.. Google, Bing)
- Use social networking websites (i.e. Facebook) carefully, potential employers may check, consider making private or deleting account
- Emails on employer email accounts are permanent and property of employer

## Security Software

- <http://download.cnet.com/windows/security-software/>
- Search by platform, price, editors/users ratings
- Direct download links

## Security Software

- Most employer-issued devices may come with preinstalled security software, usually defer to employer IT department
- Are instances where user may need to install software
- No "silver bullet", use several different types

## Security Software

- Microsoft Security Essentials
- Free! (for genuine Windows installations)
- Real-time protection - continuously runs
- System scanning – scheduled and on-demand
- System cleaning
- Relatively low usage system resources



## Security Software

- Malwarebytes Anti-Malware
- Spyware detection and removal
- Scans memory, hard drive, flash drive, etc.
- Free



### Use PDFs

- PDF – Personal Document Format
- Benefits:
  - Are probably most compatible format
  - Document creator can set varying levels of access (i.e. print only, password protect, etc)
  - Formatting of document is usually preserved
  - Can combine various formats (i.e. pictures, documents, scans, webpages, etc.) into one scrolling and/or bookmarked document



### Use PDFs

- How to:
- Adobe Standard – best choice, costs \$, can combine documents with bookmarks
- Free CutePDF Writer- <http://www.cutepdf.com/>
  - Installs a “PDF Printer” to your Windows printer list,
  - Can convert any document you can normally print
- Free with with Microsoft 2007 + products

### OSPA Technology Services

- Listserv
- Website (in process of rebuild)
- LinkedIn group
- Facebook group