Taming Digital Distractions: Tools & Strategies to Keep Tech Users On Task

AzTAP Evidence for Success Conference
Scottsdale, AZ
July 16, 2019

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Who is Shelley, and what is TechPotential?

Technology for learning & executive function challenges
- Certified AT Professional (ATP), Rehabilitation Engineering Technologist (RET)
- 32+ years AT experience

Former director of assistive technology at Stanford University
- Helped create Schwab Learning Center at Stanford (for LD & ADHD)

Assistive technology services – Arizona & online nationally
- AT Assessment, Training, Support, Implementation
- Professional development for schools
- Lecture/demo classes, hands-on workshops, webinars
- Online training, tech assistance, and consulting

TechPotential short for “Technology to Unlock Potential”
- My philosophy on “why use technology”
Technology: both a blessing and a curse

Computers, tablets, and other mobile devices can be distracting and compromise learning

- Google “student computer distractions” => litany of studies, opinion pieces, advice, and anecdotal evidence of negative effects

For students who need assistive technology, using digital devices may be unavoidable

- Some students who need AT also have attention and executive functioning challenges (inattention, impulse control, sense of time, etc.)

What to do?
Good News and Bad News

Bad news:
› Technology alone cannot fix time, attention, organization, and other executive function problems

Good news:
› Coupled with proven and thoughtfully-selected strategies, technology can greatly improve performance and productivity

Goal:
› Use technology to support, facilitate, or enhance strategies
Set the stage: manage the physical environment

Goal: make self-regulation easier

Reduce external auditory distractions
- Ear plugs, noise-canceling headphones
- White Noise app or music (no lyrics)
- Assistive listening system in class (increase ratio of foreground/background sounds)

Declutter personal work area
- No pictures, other work to sidetrack thoughts
- Task lighting (spotlight task at hand)

Incorporate physical movement
- Fidget toys/tools
- Sensory cushion, Hokki™ stool (rocks)
- Sit-stand desk
Common digital distraction triggers

Visual clutter
- Multiple open apps/windows
- Apps with complex toolbars

Complex webpages
- Ads and other unneeded info
- Clickable links and images (designed to be enticing – “click bait”)
- Visually overwhelming – difficult to locate desired info

Notifications and alerts (visual or auditory)
- You’ve got mail… or text message… or Facebook update… or new Tweet…
- Popup messages from apps and operating system (e.g., install update)

Tedium leads to temptation!
- Apps, games, websites more interesting than school work (seek reward)
Tools to manage visual clutter (1/2)

Full screen, hide other apps, close unneeded toolbars and tabs
- Mac:  Cmd-Opt-H (hide)  Cmd-Ctrl-F (full screen)
- Windows:  Win-Home (hide)  Win-Up Arrow (full screen)
- Microsoft Word "Focus Mode":  View > Focus

HazeOver (Mac) / Dropcloth (PC)
- Simple utilities dim, blur, or hide all but current app or frontmost window

Virtual desktops – compartmentalize your thinking
- Use different desktops for different tasks – only the apps and files you need
- Create 2-5 virtual desktops (don’t overdo it) – for example:
  - General schoolwork: browser, to-do app, calendar
  - Web research: browser, MS OneNote
  - Writing project: Inspiration, MS Word
  - Media project: Photos, iMovie
  - Connections: email, social media
Microsoft Word Focus Mode

‣ No toolbars
‣ Full screen
‣ Solid color background

Open a Word document and draw attention to the content in your document without having any other screen clutter with focus mode. Focus mode hides all the toolbars and lets you concentrate on the content in the document.

Read and write in focus mode

When you read or write in focus mode, the page fills the screen and eliminates all distractions. If your monitor is large enough, you can view two pages side-by-side by using Multiple Pages under the View tab. You can be in any layout such as Print, Web, Outline or Draft and still have focus mode.

Your document can get into focus mode in one of the following ways:
• Select the View tab and choose Focus.
  or
• Choose Focus on the status bar at the bottom of the Word application.
  or
• On the system menu, Choose View and select Focus.

Change background in focus mode

You can change the background and apply it to your document only in Print Layout view. To change background,
Shade or hide visual clutter

HazeOver (Mac)

Dropcloth (Windows)
Virtual desktops separate work into mental compartments

Mac Spaces
- Part of “Mission Control”
- Press key or Ctrl-Up Arrow
- Drag apps into separate Desktops, create new Desktops

Windows Virtual Desktops
- Press Win-Tab or Task View icon in Task Bar
- Drag apps into separate Desktops, create new Desktops
Tools to manage visual clutter (2/2)

Screen mask - shades page except for horizontal reading strip, blocks possible distractions
- Read&Write for Google - Screen Mask tool (Chrome)
- Claroread ScreenRuler (Mac, PC) - configurable
- Reading Focus Cards (Mac, PC) - digital version of paper reading guide

Ad blocker extensions (all browsers) – block most ads

Disable or hide webpage images (varies by browser)
- Text Mode (Chrome) – toggles images on/off, substitutes with gray rectangles

Webpage simplifier - reformats “main” article, eliminates clutter
- Read&Write for Google - Simplify Page tool (Chrome)
- Mercury Reader, Just Read (Chrome)
- Safari Reader (Mac, iOS)
- Edge Reading View (Windows)
Screen mask reduces visual complexity, aids focus & tracking
Text Mode
(Chrome extension)
Turtles are reptiles with hard shells that protect them from predators. They are among the oldest and most primitive groups of reptiles, having evolved millions of years ago. Turtles live all over the world in almost every type of climate.

According to the Integrated Taxonomic Information System (ITIS), the turtle order, Testudines (or Chelonia), splits into two suborders, Cryptodira and Pleurodira, and then further splits into 13 families, 75 genera and more than 300 species.

"Turtle," "tortoise" and "terrarin" are often used interchangeably as synonyms, but there are distinct differences between the types of chelonians, according to the San Diego Zoo:

- Turtles spend most of their lives in water. They are adapted for aquatic life, with webbed feet or flippers and a streamlined body. Sea turtles rarely leave the ocean, except to lay eggs in the sand. Freshwater turtles live in ponds and lakes, and they climb out of the water onto logs or rocks to bask in the warm sun.
- Tortoises are land animals. Their feet are round and stumpy, adapted for walking on land. They also dig burrows with their strong forelimbs, and slip underground when the sun gets too hot.
- Terrapins live on land and in water, usually in swamps, ponds, lakes and rivers.

With so many different types of turtle, there is no average size. The largest sea turtle species is the leatherback turtle. It weighs 600 to 1,500 lbs. (272 to 680 kilograms) and is about 4.5 to 5.25 feet (139 to 160 centimeters) long. According
Digital Distraction Cycle

Digital technology often designed to entice continued use

- Biggest offenders: YouTube, retail websites, online ads, games, social media
- Operating system and apps call for attention NOW (alerts, notifications)
- Individuals with ADHD, executive functioning issues particularly vulnerable

**Goal:** break the cycle

- Reduce or eliminate triggers
- Prohibit response
- Disconnect from reward

**Trigger**
- diverts or redirects attention

**Response**
- click link, open file, start different task

**Reward**
- more interesting, less frustrating, creates illusion of multitasking, more triggers (think YouTube!)
Manage notifications & alerts – “calls to (distr)action”

Mac
- System Preferences > Notifications
- Set prefs for specific apps (visual banner, sound, none)
- Use Do Not Disturb to silence and hide all

Windows 10
- Settings > System > Notifications & Actions / Focus Assist
- Set visual, sound prefs for certain Microsoft functions (e.g., Audio, Security)

Chrome
- Settings > Advanced Settings > Privacy & Security > Content Settings > Notifications
- Allow or block notifications for specific websites or all sites

iPad, iPhone
- Settings > Notifications (set banners, badges, and/or sounds for specific apps)
- Settings > Do Not Disturb (manual or scheduled)

Android
- Settings > Apps & notifications > Notifications (set how and when notified)
- Some apps have notification settings within the app
Tools to short-circuit distraction cycle

Block access to time-waster websites and apps
- Boredom, frustration => seek something more rewarding
- Black list = user cannot access these sites/apps
- White list = user can only access these sites/apps

1) “Parental Controls” built into device operating system
- Black list and white list websites
- Limit access to certain apps
- Schedule access to entire device

2) Internet content-control services
- Black list and white list websites, filter content categories (e.g., adult sites)
- Set time limits and schedules for Internet access
- Monitor Internet activity (summaries, control remotely)

3) Dedicated website and app blocking utilities and extensions
- Examples: Cold Turkey (Mac, PC); StayFocusd (Chrome extension)
Built-in user management tools

Mac: “Parental Controls”
- System Preferences > Users & Groups > Create new user
- Enable Parental Controls: limit available apps, blacklist/whitelist websites, schedule access times
- Simple Finder: simplified access for inexperienced or easily-distracted users

Windows: “Family Safety”
- Start > Settings > Accounts > Create new Child account
- From Accounts, click Manage Family Settings Online to limit apps, blacklist/whitelist websites, schedule computer access times, monitor site & app activity

Chrome: “Supervised User”
- Settings > People > Add person...
- Check “Control and view the websites this person visits from [your admin account]”
- Supervised Users dashboard: blacklist or whitelist specific websites

iOS (iPad, iPhone): “Screen Time”
- Settings > Screen Time; choose “This is my device” or “…child’s device”
- Content & Privacy Restrictions, then restrict access to apps, device features, app purchases, content
- To whitelist & blacklist websites: Content Restrictions > Web Content > Allowed Websites > enter URLs

Android: “Parental Controls” & “Family Link”
- Google Play Parental Controls: Menu > Settings > Parental Controls
- Family Link App: manage settings for child users such as content, screen time limits, more
Online content control services

Features vary widely by service, platform
- Content filters (e.g., adult sites)
- Black list & white list sites/categories of sites
- Monitor Internet activity, provide summaries
- Limit, monitor, and track usage by time/day
  - but also –
  - Listen to conversations (WhatsApp, Skype)
  - View social network activity
  - Track calls and text messages
  - Monitor kids’ activity in real time
  - Provide parents with remote control

Numerous services available
- Google “parental control”, “content filtering” for reviews, comparisons, supported platforms

Qustodio tracks websites, apps, duration, days, search activity, social media activity, and more

Couple with strategies to improve online practices, make better decisions
Cold Turkey (Mac, PC)

Create black/white “Block Lists” for combos of sites & apps

- Apply Block List(s) for selected duration (15 min., 2 hrs.) or pre-defined schedule (e.g., weekdays from 9am to 2:30pm)

Once started, cannot be stopped (apply wisely!)
Using tools to build executive function skills

**Self-monitoring and screen time allowance** tools help students:

- Increase awareness of distraction triggers
- Increase awareness of how they use of time (daily allotment)
- Practice making conscious (and better) decisions regarding device use
- Increase independence

**Pace task completion to reduce distractibility**

- Bored or frustrated mind tends to seek more stimulating activities (distractions)
- Shorter targeted work intervals + breaks can improve mental agility and focus (less vulnerable to off-task "temptations")

**Remember: tools work best when coupled with strategies**

- Help students understand purpose of tools
- Student collaborates with teachers and parents to create workable strategies
- Provide time for practice, setbacks, self-awareness growth
Monitor device use, internalize good time management skills

RescueTime (Mac, PC) tracks:
- Time spent on websites, in applications
- Provides bird’s-eye view of time usage
- Watches usage, sends alerts & summaries
- Rank apps/websites as productive or distracting

ScreenTime (iOS 12+, macOS 10.15+), Moment (iOS)
- Monitor screen time and usage
- Forces user to set limits, reduce time on apps

Digital Wellbeing, AppDetox (Android)
- Monitor time spent on apps, websites
- Set rules for “detoxing” from heavy app use
RescueTime

Example of a Daily Dashboard summary (red = distractive, blue = productive)

Your goals for this day

More than 4h on All Productive Time
3h 14m TOTAL THIS DAY

Less than 1h on Very Distracting Time
40m 19s TOTAL THIS DAY
Screen Time for iOS (iPhone, iPad)

Settings > Screen Time

- Schedule Downtime (time away from screen)
- Select categories of apps to monitor and/or limit
- Set maximum time permitted per day on each app category
- Customize days limit applies
- Also limit access to certain apps and features (e.g., app purchases, camera, Siri)
- Receive daily & weekly feedback
Google Digital Wellbeing (Android)

Features similar to iOS Screen Time, but only for some Android devices

- Google Pixel, Android One, Moto G7, some Nokia and Samsung (more to come)
- Settings > Digital Wellbeing

ActionDash app

- Provides most Digital WellBeing features for all Android devices
- ...but missing some key features (e.g., set app usage limits)
Pace task completion to sustain focus

Parkinson’s 3rd Law: Work expands to fill the available time for completion
- Extra time may not mean more work completed

Pomodoro Technique ("tomato" in Italian)
- Shorter targeted work intervals, regular breaks can improve mental agility, focus, motivation ("Hey, I’m actually getting things done!")
- The Pomodoro Technique (link)

Apps that leverage Pomodoro Technique
- 30/30 (iOS) - simple yet powerful
- Be Focused (iOS, Mac) - also tracks progress
- Forest (iOS, Android) - plant trees with each interval, watch forest "grow" as evidence of progress
How Pomodoro Technique works

1) Create list of tasks with specific goals
   ‣ Examples: “read one section, take notes”; "do 3 math problems"
   ‣ Not "read history textbook"; "work on essay"

2) Set timer to one “pomodoro” interval (15-30 minutes)

3) Work on single task until timer rings (even race the clock)

4) Short break (2-5 minutes)
   ‣ Movement, cookie, go outside – not screen time

5) Move to next task
   ‣ Perhaps different type to alleviate boredom

6) After four “pomodori”, longer break (15-30 minutes)

Frontload list with easy tasks to kickstart action, motivate
   ‣ Examples: “Create and name Google Doc” or “List 3 sources of information”
For more information & other AT resources...

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For more info on technology described herein, visit the AT Toolbox:
www.TechPotential.net/ATtoolbox