

**RST**

Where Rehabilitation,  
Science, and Technology  
change lives!

Department of Rehabilitation  
Science and Technology

School of Health and  
Rehabilitation Sciences



**Technology Options for  
Clients with Prospective  
Memory Impairments**

Edmund LoPresti, PhD

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**Prospective Memory Component Skills**

- Remembering tasks
- Orientation to time
- Self-initiation

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**Low-Tech Tools**

- Low-maintenance
- Familiar
- Mainstream



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## Flip Phones

- Most have basic calendar, clock, and/or note-taking features
- May not be user-friendly
- May require texting skills

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## Smart Phones

- Larger screen
- Touchscreen
- Onscreen keyboard, voice recognition
- Sound & vibration
- Search features
- Information synchronized with cloud
- More apps
  - Specialized prospective memory apps
  - Apps addressing other cognitive skills
  - Apps motivating use of device
- Mainstream



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## Orientation to Time

- Clock apps
  - Alarms
  - Timers



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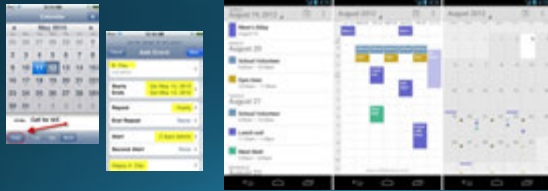
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## Schedule Management

- Calendar apps




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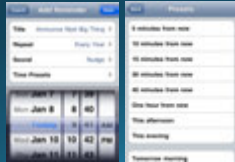
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## Third-Party Reminder/Calendar Apps

- Nudge – Reminders (iOS; \$0.99)
  - Unlike Clock, lets you set specific date as well as time (or choose from presets)
  - Unlike Calendar, doesn't require an extra step to set an alarm




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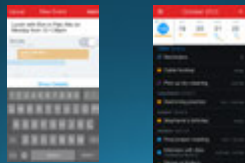
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## Third-Party Reminder/Calendar Apps

- Fantastical (iOS; \$4.99, \$9.99 for iPads running iOS 8)
  - Natural language input
  - More recurring event options
  - Reminders based on arriving at or leaving a location




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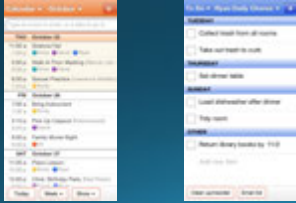
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### Third-Party Reminder/Calendar Apps

- Cozi (iOS, Android; free, Gold requires recurring \$29.99/year)
- Shared calendars and to-do lists




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### Sharing with Nudge - Reminders

- Can send someone a reminder; if they also have Nudge, they can import it




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### Shared Calendars

- Create a calendar for the person with a disability
- Share with a support person, with permission to change events and/or manage sharing




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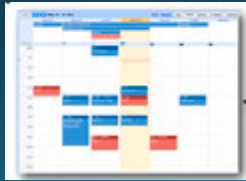
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## Shared Calendars

- Support person can view and edit person's schedule



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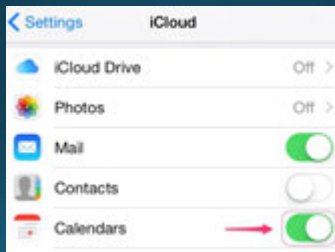
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## Shared Calendars - iOS



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## Shared Calendars - iOS



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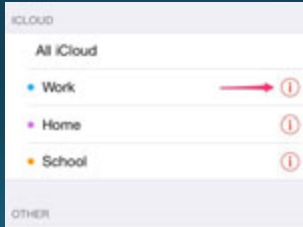
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### Shared Calendars - iOS



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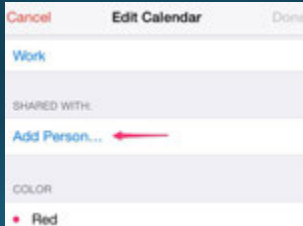
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### Shared Calendars - iOS



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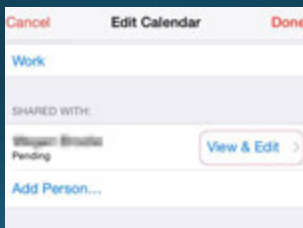
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### Shared Calendars - iOS



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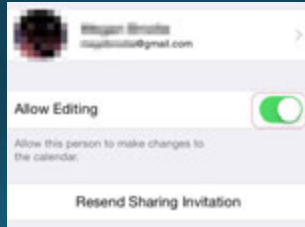
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## Shared Calendars - iOS



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## Sync with Desktop Calendars

- Outlook
- iCal
- Google Calendar

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## To Do Lists - Standard

- Built-in options
  - Reminders app on iOS
  - Task list in Google Calendar on Android
  - Set due dates, reminders

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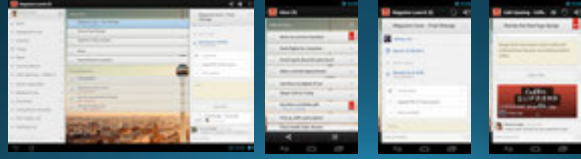
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## To Do Lists - Wunderlist

- Wunderlist (iOS, Android; free)
  - Organize folders
  - Take pictures or record audio on phone and include in to-do item
  - Free version only allows files <5 MB; Pro requires recurring \$4.99/month, supports shared lists




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## To Do Lists – Appigo Todo

- AppigoTodo (iOS; \$4.99, need to upgrade to Pro for task sharing or complete synchronization, \$1.99/month)
- Getting Things Done methodology
- Some synchronization problems




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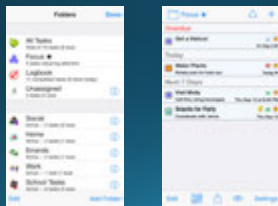
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## To Do Lists - Errands

- Errands (iOS; free, optional "upgrade" to support developer)




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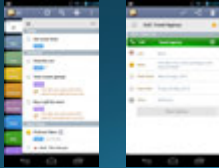
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## To Do Lists – 2Do

- 2Do (Android \$6.99, iOS \$14.99)
- Syncs with Dropbox or Toodledo; not Outlook, Google, or iCal



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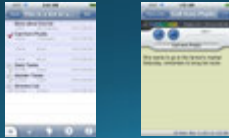
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## To Do Lists – List Recorder

- List Recorder (iOS; \$0.99, \$7.99 in-app upgrade for recordings longer than 10 seconds)
- Create list items by audio recording; assign due dates
- Designed for compatibility with VoiceOver



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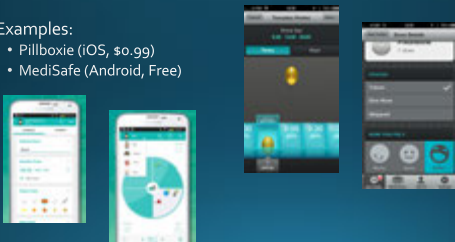
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## Medication Reminder Apps

- Examples:
  - Pillboxie (iOS, \$0.99)
  - MediSafe (Android, Free)



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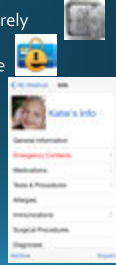
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## Information Storage Apps

- Quick Password Manager (iOS, \$0.99): Securely store passwords
- eWallet (iOS, Android; \$9.99): Securely store passwords, financial information
- My Medical (iOS, Android; \$4.99): Medical information



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## Non-Phone Platforms

- Don't require data plans, recurring charges
- Tablet
  - iPad
  - Android
- iPod Touch

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## AbleLink Endeavor 3

- Calendar and to-do list designed for people with TBI, ID
- Available for iOS
- Personal \$99.99
- Agency \$199.99



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## AbleLink Visual Impact

- Task guidance (Microprompting)
- Step-by-step directions
- Text, voice, pictures and video



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## AbleLink Visual Impact

- Available for iOS
- Personal \$149.99
- Agency \$299.99

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## AbleLink Agency Mode

- Connect with Cloud Services
  - Smart Living Console (Endeavor 3)
  - Learning Library (Visual Impact 3)
- Enable clinicians to manage clients remotely
  - tailor tasks to each individual's needs,
  - schedule reminders
  - upload video modeling content

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# PEAT

Planning and Execution Assistant & Trainer

- Calendar software
- Pictures and sounds
- Cue card view
- Performance Log
- Automatic scheduling adjustments




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# PEAT Performance Log

```

[9:17:37 am] Peat: Free Time until Wake Up starts at 9:30 am.
[9:30:00 am] Peat: START Wake Up?
[9:30:24 am] User: OK (Wake Up)
[9:30:24 am] Peat: Continue until 10:30 am
[10:30:00 am] Peat: STOP Wake Up?
[10:30:21 am] User: OK (Wake Up)
[10:30:21 am] Execute Task: Wake Up
  
```

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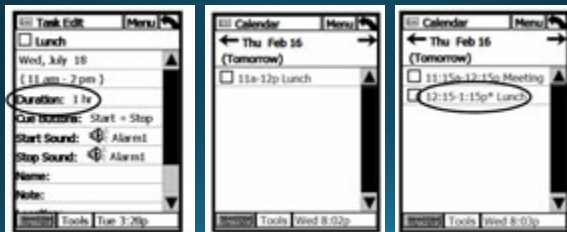
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# PEAT – Advanced Planning Floating tasks




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## PEAT – Advanced Planning Floating tasks



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## PEAT

- Android
- \$1,495

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## Dedicated Devices

- Clients may be overwhelmed by smart phone options, intimidated by smart phones, or not consider themselves "techy"
- Clients may have difficulty remembering to carry a smart phone, iPod, or tablet and benefit from a wrist-worn solutions
- Clients may have difficulty independently programming appointments but benefit from receiving alarms

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## Invisible Clock

- 12 timers
- Vibration option
- Meeting reminder
- Count down timer
- \$40



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## Cadex Watch

- 12 alarms
- Audio or vibration
- Brief text messages
- Store emergency medical information
- \$140



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## WatchMinder

- 8 daily alarms
- Vibration and beep
- Scheduled alerts
- Repeating alerts for behavioral cueing
- \$90



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## StepPad, StepPad Mini (Attainment Company)

- Auditory step-by-step task cueing
- StepPad: Up to 8 activities, up to 29 steps per activity
  - \$51.50
- StepPad Mini: One activity, 72 seconds total recording time
  - \$30



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## Medication Reminders

- Example: MedCenter
  - 31 pill containers with 4 slots each
  - Talking alarm clock
  - \$67



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## Smart Watches

- Typically require constant connection with a smartphone
- Some can provide at least some functions on their own

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## Pebble Time

- Can provide alarms, some other functions while disconnected
- Can connect with iPhone or Android



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## Samsung Gear S

- Requires Android device for set-up, but then can run on its own providing many of the features of a smartphone



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## oMate TrueSmart+

- Standalone Android smart watch
- Apps
  - Calendar
  - Anydo to-do list
  - Timely alarm clock



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