STFM Conference on
Medical Student Education

There's An App for That: Using Technology to Improve Teaching, Scholarship, and Wellness. Tools for Academic and Home Life!

Pre-Conference Workshop

January 31, 2018

1:00 – 5:00 PM

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Disclosures

We are all faculty at various medical schools who engaged in this work through our involvement with the STFM Medical Student Education Steering Committee

We have nothing to disclose!

Please evaluate this presentation using the conference mobile app! Simply click on the "clipboard" icon on the presentation page.

Meet our team:

Joanna Drowos DO and Peter Koopman MD (Co-chairs)

Technology Tips to Improve Teaching and Engaging Learners

- Team captain: David Kelley MD
- Lisa Martinez MD
- Nirmala Prakash PhD

Technology Tips for Academic Promotion and Productivity

- Team captain: Matthew Holley PhD
- Amanda Chiplock MLIS, AHIP
- Ron Cook DO
- Tomoko Sairenji MD

Technology Tips for Communication and Balance

- Team captain: Kala Yedavally DO MEd
- Kristen Hood Watson MD
- Parvathi Perumareddi DO
- Mandi Sehgal MD
- Chivon Stubbs MS-4

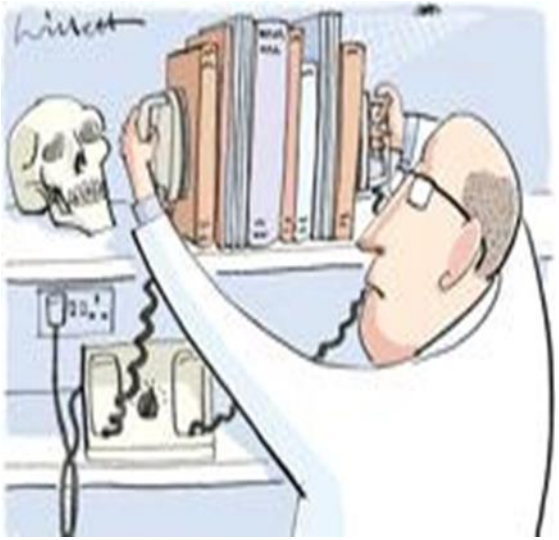
Note Takers:

- Peter Averkiou MD
- Erika Schillinger MD

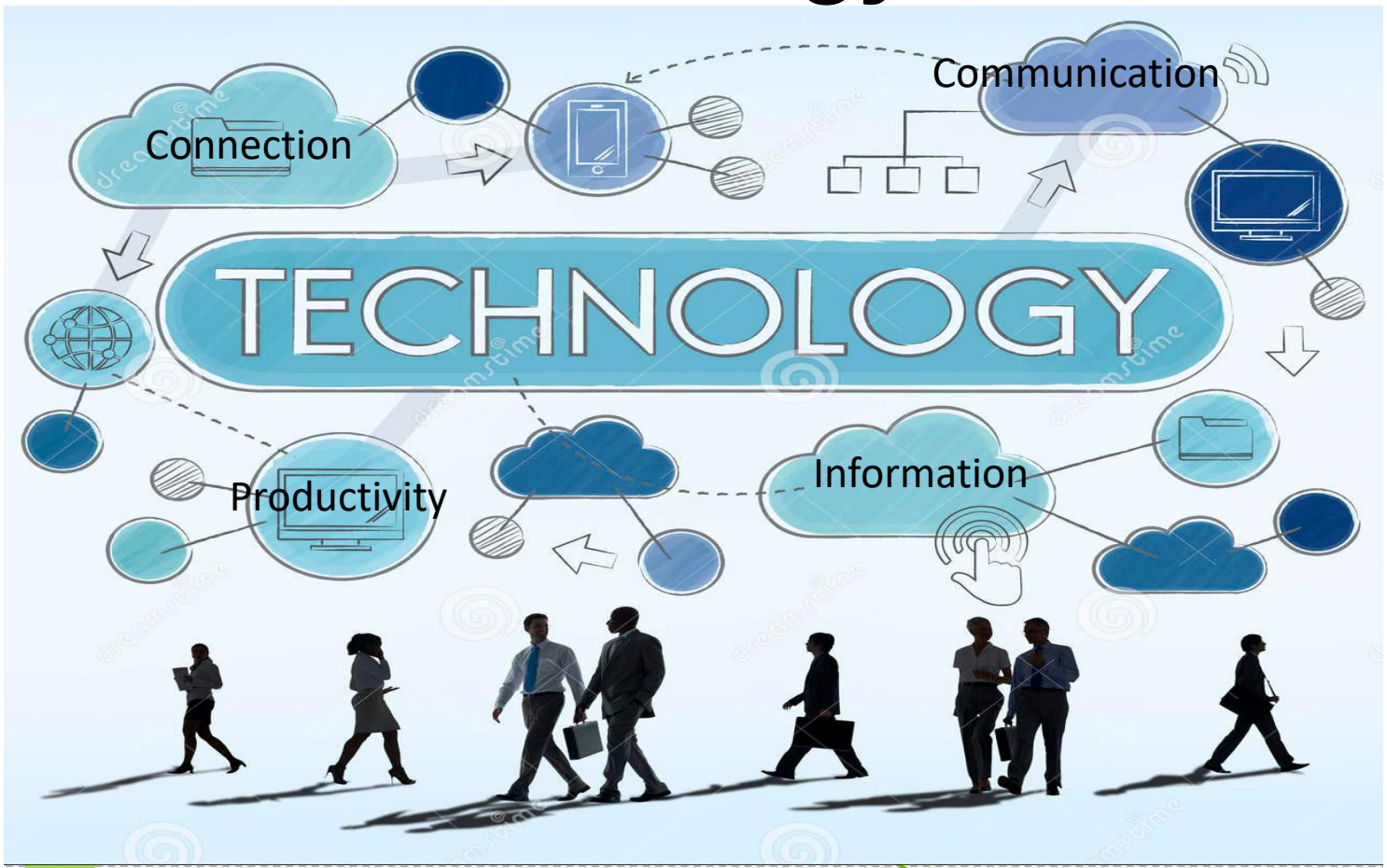
The Balance of Academics

Why Academic Medicine is Difficult

- Scholarship Requirements
- Tenure Clocks
- Fluctuating Workloads
- Ideal Worker – work-intense culture
- Role Models
- Multiple Roles
- Do It All Personality



What Technology Offers



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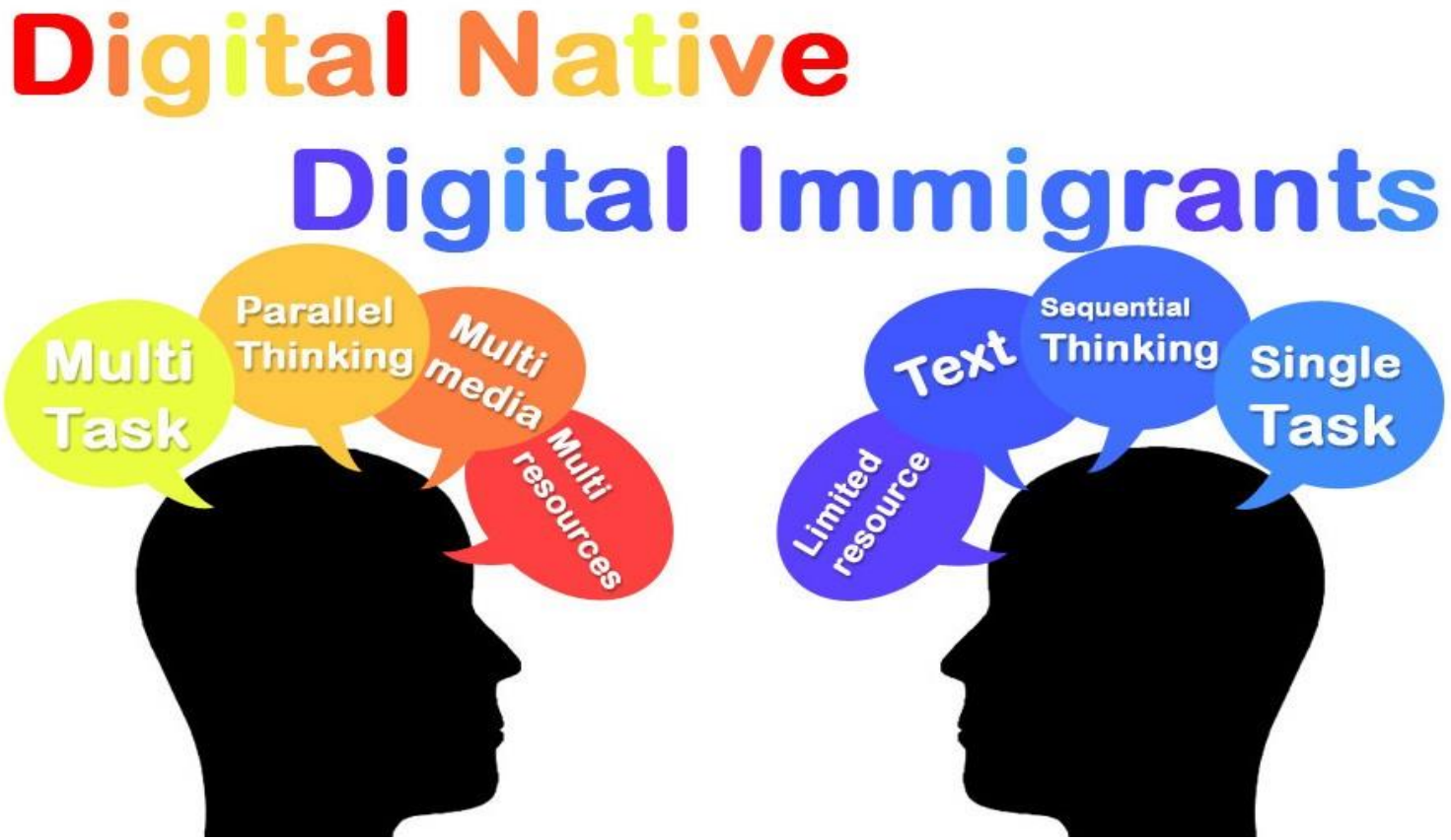
The Reality of Technology



Engage our Learners

Today's Outline

- 1:00 -1:15 pm: Welcome and Introductions
- 1:20-2:00 pm Breakout Session #1
- Break #1
- 2:15-2:55 pm Breakout Session #2
- 3:00-3:40 pm Breakout Session #3
- Break #2
- 3:50- 4:45 pm Demonstration Station:
- 4:45-5:00 pm Wrap up

Our Goals for Today

- Discover new tools!
- Try out tools and applications
- Practice using new tools
- Pick a few to adopt!

Questions?

- Selected references:
- 1. Shanafelt TD, Boone S, Tan L, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. Arch Intern Med. 2012;172(18):1377-1385. https://doi.org/10.1001/archinternmed.2012.3199.
- 2. Lowenstein SR, Fernandez G, Crane LA. Medical school faculty discontent: prevalence and predictors of intent to leave academic careers. BMC Med Educ. 2007;7(1):37.
- https://doi.org/10.1186/1472-6920-7-37.
- 3. Shanafelt TD, West CP, Sloan JA, et al. Career fit and burnout among academic faculty. Arch Intern Med. 2009;169(10):990-995. https://doi.org/10.1001/archinternmed.2009.70.
- 4. Guze PA. Using Technology to Meet the Challenges of Medical Education. Transactions of the American Clinical and Climatological Association. 2015;126:260-270.
- 5. Rosenberg M. E-Learning: Strategies for Delivering Knowledge in the Digital Age. New York: McGraw-Hill, 2001.
- 6. Ward JP, Gordon J, Field MJ, Lehmann HP. Communication and information technology in medical education. Lancet. 2001;357:792–96.
- 7. Rogers, D.L. (2000). A Paradigm Shift: Technology Integration for Higher Education in the New Millennium. AACE Journal, 1(13), 19-33. Charlottesville, VA: Association for the Advancement of Computing in Education (AACE). https://www.learntechlib.org/primary/p/8058/.

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Breakout Session #1
Technology Tips to Improve Teaching and Engaging Learners

Team captain: David Kelley MD

Lisa Martinez MD

Nirmala Prakash PhD

Technology is meant to enhance what we do, not take away

- What's a starting point for technology we all use?
- PowerPoint
- Anonymous clicker technology
  - Everyone connect to _____ (thinking turning point app or connected classroom unless you want something else?

PowerPoint Objectives

- Upon completion of this session, participants should be able to:
  - Have an improved understanding of powerpoint techniques
  - Improve their own presentations
  - Implement these techniques moving forward

Good PowerPoints

- They should pull you in!
- They shouldn’t push you away
- You shouldn’t be just reading off the slides
- They should have enough but not too much information
- They should follow a general format

Tools

- Do you use the tool to help you?
- Are you being used by the tool?
- No better way to use it?
- Embarrassed to ask for help?
- PowerPoint is just one of many tools you can use.

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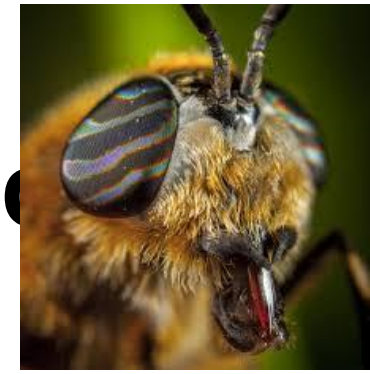
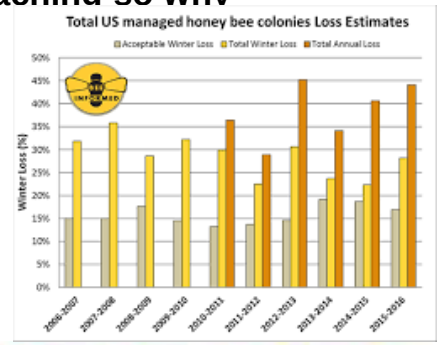
Can’t you read this?

Don’t you love BEE”S



What’s wrong with this sli

- **There is just so much good information I can share with all of you.**
- **I know that you only want to read my slides so I am going to pack this full**
- **There is no way you actually want to pay attention to the speaker so lets keep packing this full**
- **How many more words can I fit on this page, I am starting to get exhausted from teaching so why not just keep typing**
- **I hope you can read this far becase my fingers are starting to get tired**
- *By the way I wanted to do a snelling eye test for you as well so can you read this line.*
- *How much smaller can it get are you sure you can read this.*
- *What is the point of having so much information on the slide*
- *Well I think we also need a graph so that it is even harder to read this as well*
- *How much did you really want to get out of this presentation*
- *It sounded like such a good idea to start out with?*
- **Why is it so hard to read this?**
- **What did you want to learn from this slide**
- **Thas right don’t do this**
- **Why would anyone do this to another human**
- **It is really quite hard to read something this small**
- **If there is something that needs to be this small lets do something e**



Don’t you love YELLOW!

n Twitter: #MSE19

General principles of PowerPoint

- It is here to help
- The presenter is the star
- Enhance not distract
- It is not the entire presentation
- Not alternative to other products
- Not a teleprompter

Advantages

- People learn visually
- Enhance teaching points
- Stay organized
- Persuade Audience
- Easy to use

Design Tips

- Use Sans-Serifs fonts- don't have feet
  - Ariel or Helvecica
- Use **bolding** or <u>underlining</u> for effect
  - Avoid Italics- hard to read
- Avoid UPPER CASING unless very strong effect
- Titles - 44 pt
- Subtitles - 28- 34
- Bullet points - no smaller than 24

- Avoid too much text
- 6x6 rule
- Check spelling- sounds easy….
- Colors – what are you telling people
  - Cool vs warm
  - What are you trying to get across

Presenting rules

- Don’t read straight off your slides
  - What are you telling people when you do this?
- Try not to have more than 2 slides a minute
- Practice before you get there
- Connect audience to your information

Flipped Classroom

- Dynamic Classrooms
  - Engages learners
  - Stimulates active thinking
  - Includes authentic voices
  - Thought provoking
  - Active

Methods to Achieve a Flipped Classroom

- Record lectures
- Provide detailed notes in PowerPoint slides
- Truncate lectures to include important take home points
- Cover nuanced and detailed information via the flipped classroom time

What will I do with all that time?

- Panels
- Guest facilitators
- Video clips
- Breakout sessions
- Simulations
- Role play and hands on activities

Resources

- Enfield, J. (2013). Looking at the impact of the flipped classroom model of instruction on undergraduate multimedia students at CSUN. *TechTrends*, *57*(6), 14-27.
- Jinlei, Z., Ying, W., & Baohui, Z. (2012). Introducing a New Teaching Model: Flipped Classroom [J]. *Journal of Distance Education*, *4*(8), 46-51.
- Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. International society for technology in education.

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Using Technology for Clinical Teaching

What do you think of when you think of bedside teaching?

Picture: Training Young Doctors: The Current Crisis by Lara Goiten

What do you think of when you think of bedside teaching?

Picture: https://news.uci.edu/2009/04/22/a-role-in-medicine/

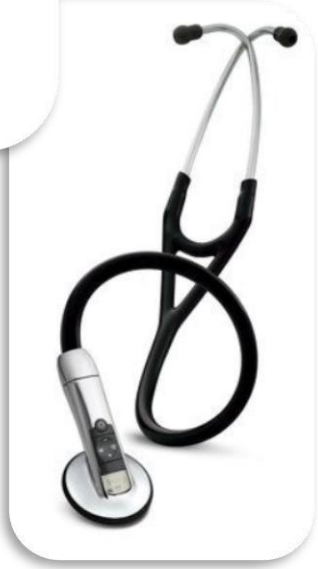
What do you think of when you think of bedside teaching?

Picture: Bedsidemedicine.org

How can we enhance bedside teaching with technology?

- Murmurs or breath sounds – Can be recorded and shared with electronic stethoscopes
- Fundoscopic exam – Can be displayed on your phone
- Use of on the spot QR codes can increase Faculty completing Clinical Evaluations on students

Digital Stethoscopes



- Can improve medical student ability to identify murmurs (51% vs 25%)
- Can be used for playback to “study” the heart sounds

Arq Bras Cardiol. 2013 Feb;100(2):187

Digital Stethoscopes

- Recordings can be used in simulated environments
- “Pin” QR codes to Standardized patients

Fundoscopy

Fundoscopy

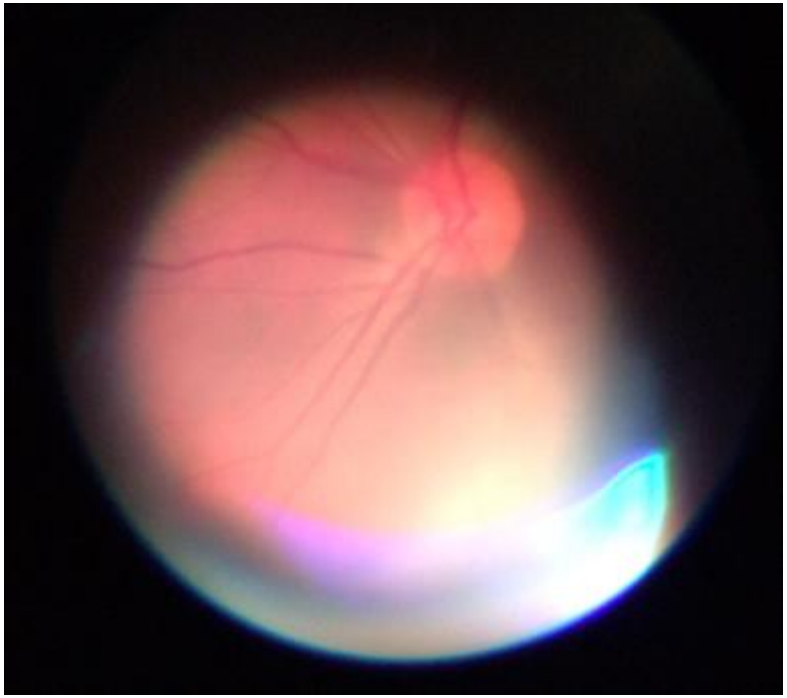
- Rarely done in clinical scenarios, likely due to inadequate training
- Use of simulators can help improve competence

Clinical Teacher 2013; 10(2)
JAMA Neurol. 2017;74(10)

Panoptics/digital fundoscopes

Picture:
https://meded.ucsd.edu/clinicalmed/eyes.htm

Panoptics/digital fundoscopes



Using QR codes

- Like a UPC but your phone automatically reads it and send you to a document or website
- Can link this to evaluation software and have a “Mini-CEX” evaluation

Take home points

- Bedside rounds do not need to be completely changed, but use of technology can help assure students learn/hear/see what you want them to

- Use of QR codes can help share evaluations, documents or soundwaves

Questions?

Thank you!

Break Time!

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Breakout Session #2
Technology Tips for Academic Promotion and Productivity

Team captain: Matthew Holley PhD
Amanda Chiplock MLIS, AHIP
Ron Cook DO
Tomoko Sairenji MD

Key Consideration:

Explore your institutional memberships and what your institution will support.

- Medical Library
- Teaching & Learning Centers
- Faculty Affairs

Technology for Scholarship & Research

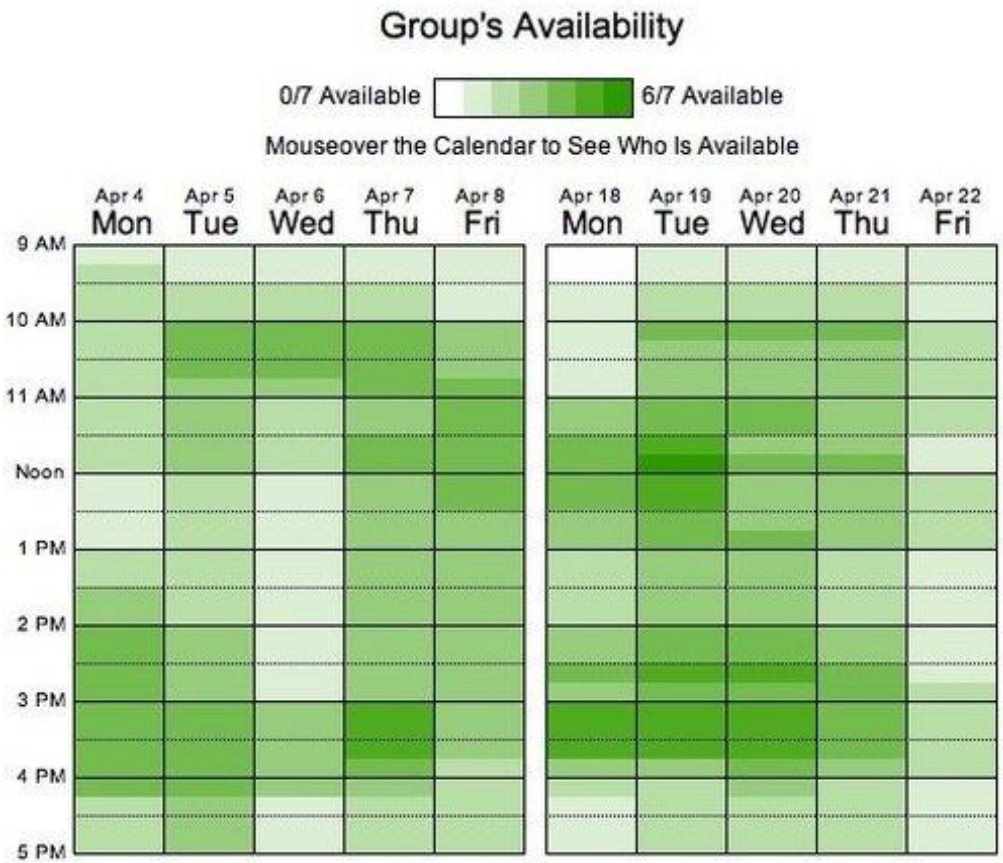
- Qualitative Research
- Quantitative Research
- Survey Research
- Citation Management
- Project Collaboration & Management

"You are completely free to carry out whatever research you want, so long as you come to these conclusions."

Example #1:

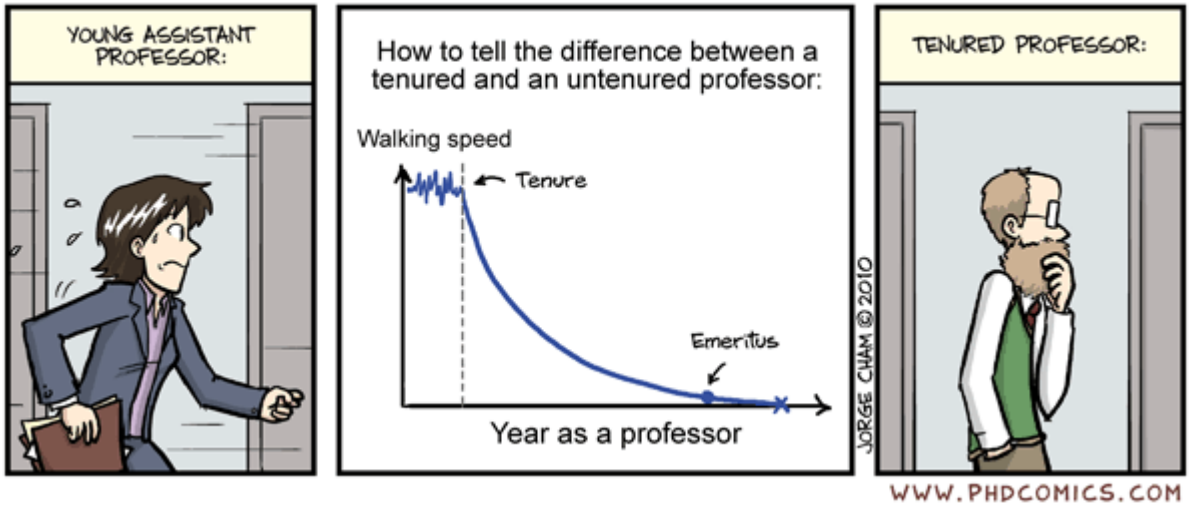
ProQuest
RefWorks

Example #2: When2meet

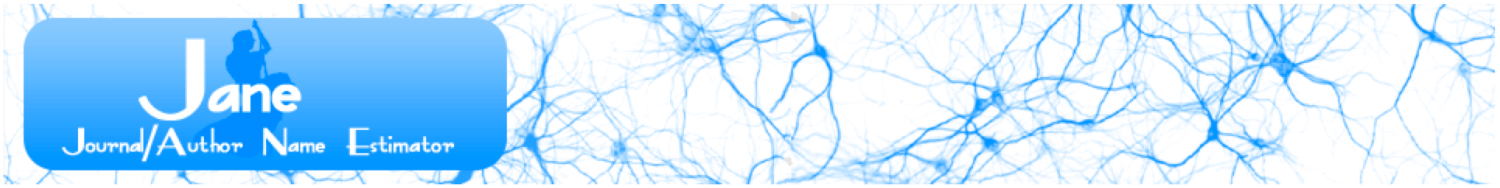


Technology for Promotion & Tenure/Recognition

- Networking & Research Sharing
- Grant Funding
- Journal Searches
- Dossier Preparation



Example #3:



Insert your title and/or abstract here: (or, click here to search using keywords)

Scramble | Clear | Show extra options

Find journals | Find authors | Find articles

Welcome to Jane

Have you recently written a paper, but you're not sure to which journal you should submit it? Or maybe you want to find relevant articles to cite in your paper? Or are you an editor, and do you need to find reviewers for a particular paper? Jane can help!

Just enter the title and/or abstract of the paper in the box, and click on 'Find journals', 'Find authors' or 'Find Articles'. Jane will then compare your document to millions of documents in *Medline* to find the best matching journals, authors or articles.

Keyword search

Instead of using a title or abstract, you can also search using a keyword search, similar to popular web search engines. Click here to search using keywords.

Additional information about Jane

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Example #4:

Digital Measures is now part of Watermark! Read the news.

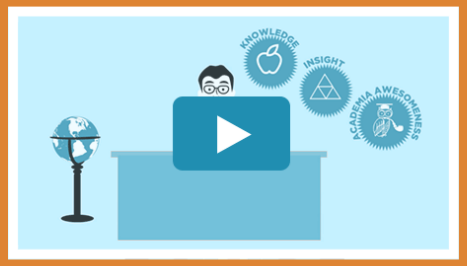
DigitalMeasures by Watermark™

Software Services Company Clients Resources Contact

ACTIVITY INSIGHT

The leading web-based faculty activity reporting solution that transforms the way you leverage your faculty's activities and accomplishments.

Watch the video below to learn more



Capture Faculty Information Once, Use It Infinitely.

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Breakout Session #3
Technology Tips for Communication and Balance

Team captain: Kala Yedavally DO MEd
Kristen Hood Watson MD
Parvathi Perumareddi DO @parper19
Mandi Sehgal MD @msehgalmd
Chivon Stubbs MS-4

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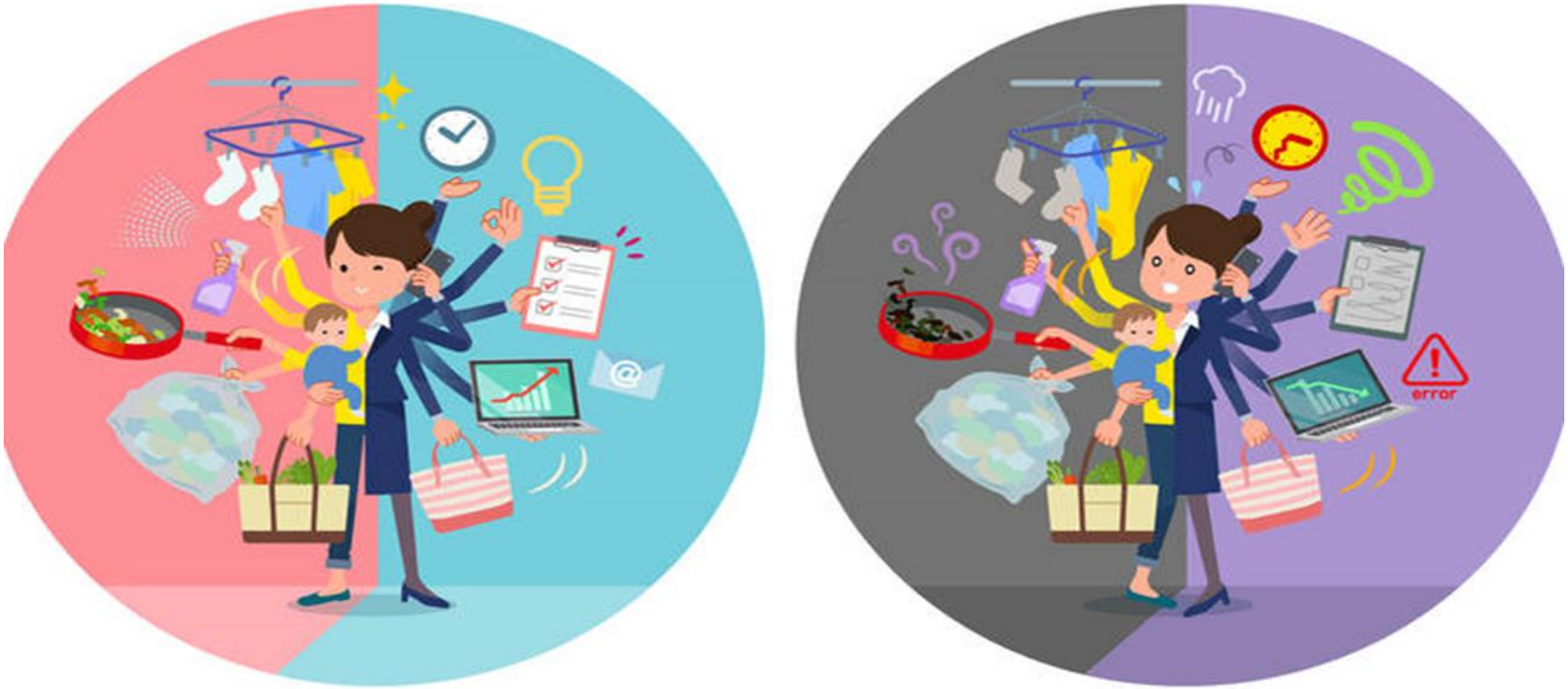

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Benefits of Technology

- Healthcare
  - In research
  - Personal medical record access
  - EHR
- Education
  - Remote areas of the world can have access
- Communication
  - Global community
- Business

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There's an App for That!

- Cozi – digital planner
- IFTTT – allows you to merge multiple apps
- Strides – helps monitor your progress towards a professional goal
- MedHelper – people with chronic illness, med management, etc
- Splashtop Remote Desktop – allows access to files/programs on phone or tablet
- Toggl – time management tool
- Instapaper –bookmarks articles and web pages to read later
- Mint – track finances, check credit score

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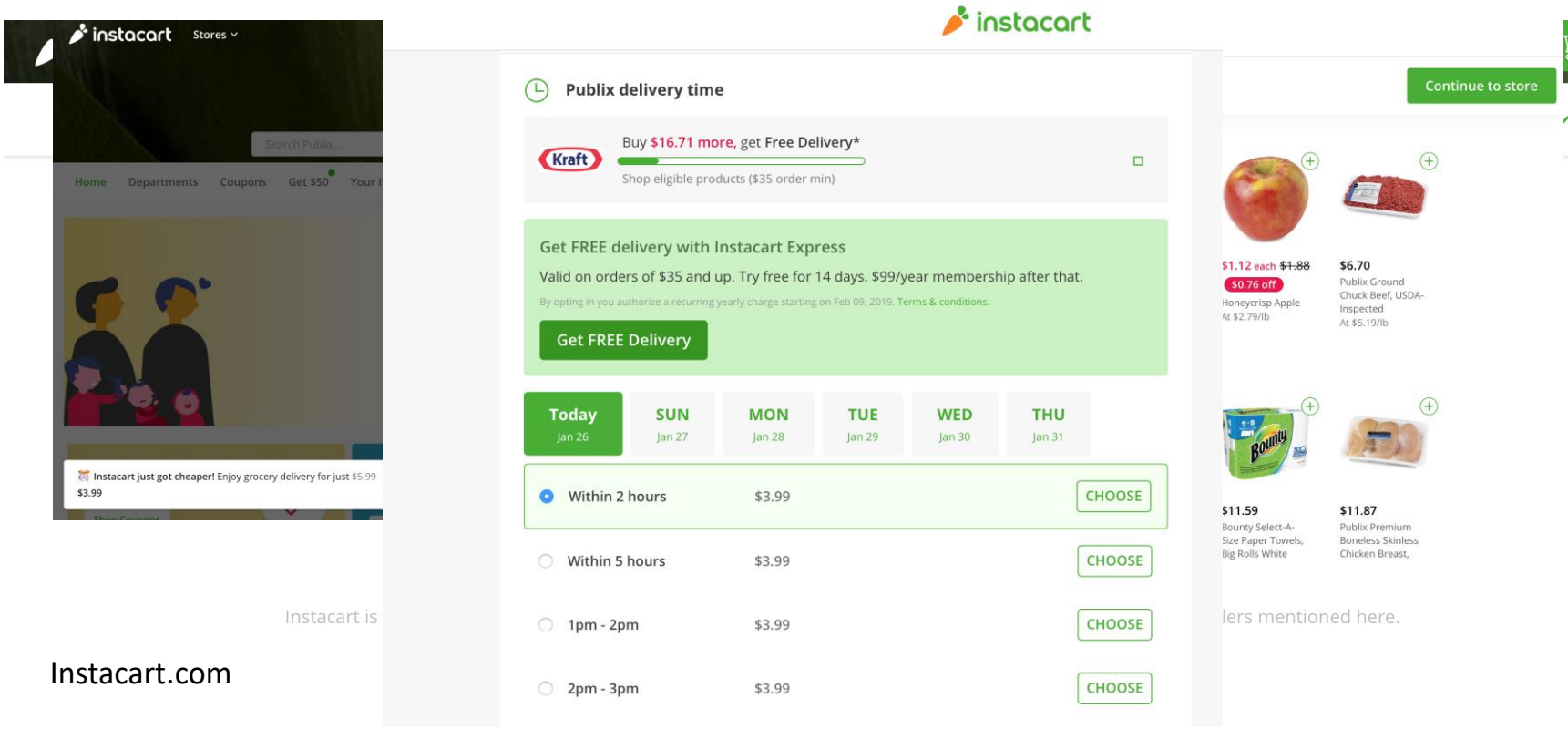
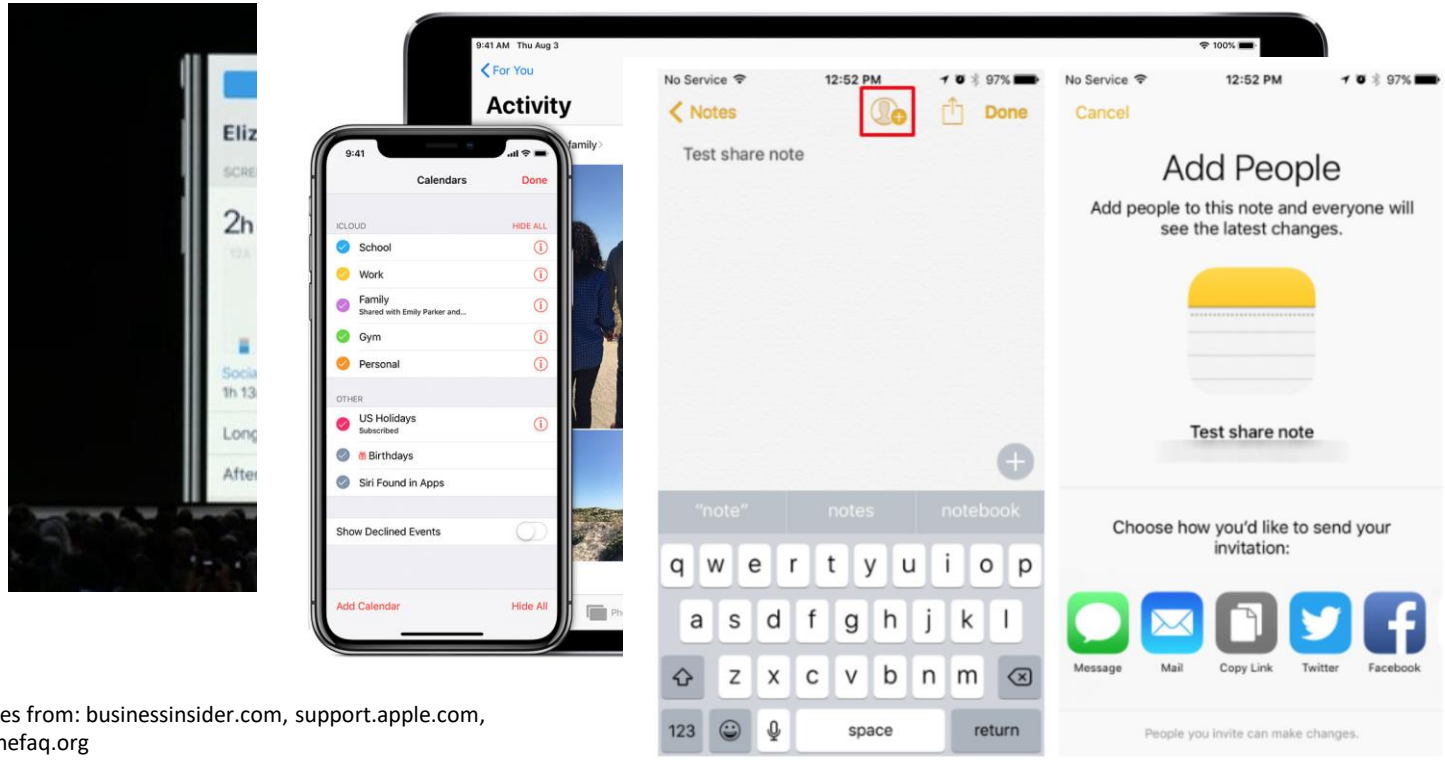
Organization and Lifestyle Tools

instacart



Instacart.com

iPhone



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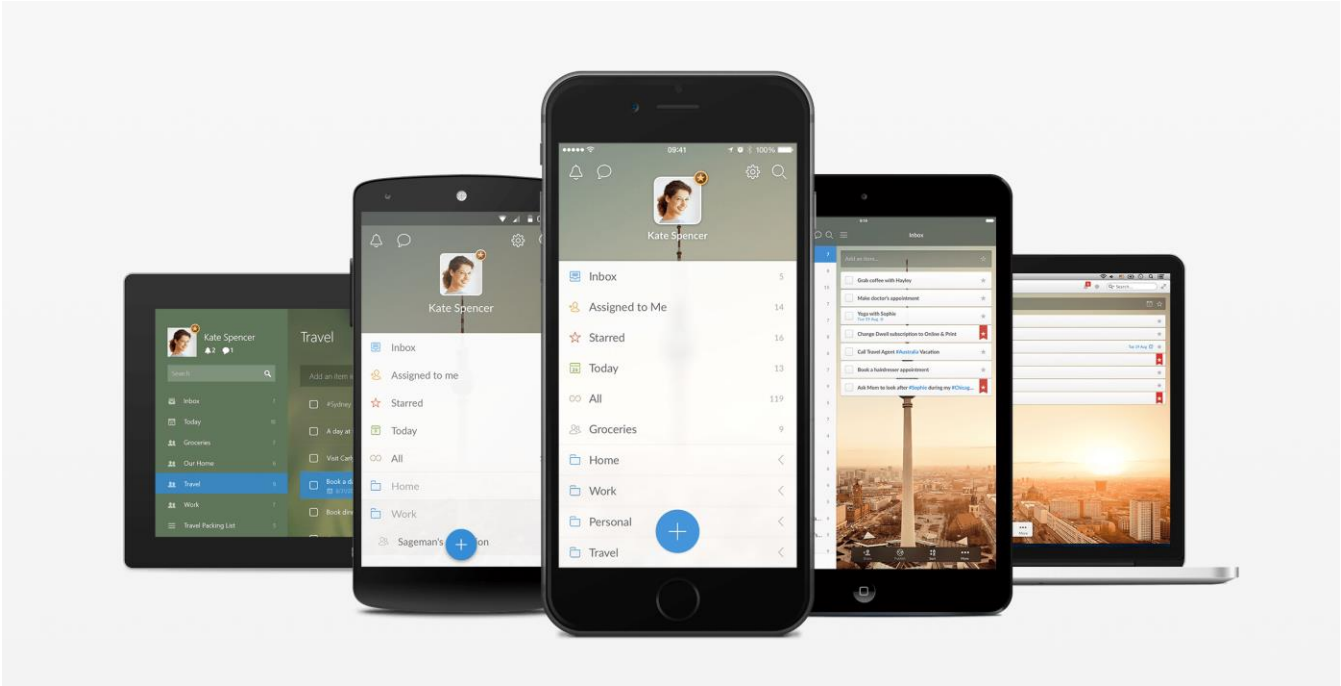
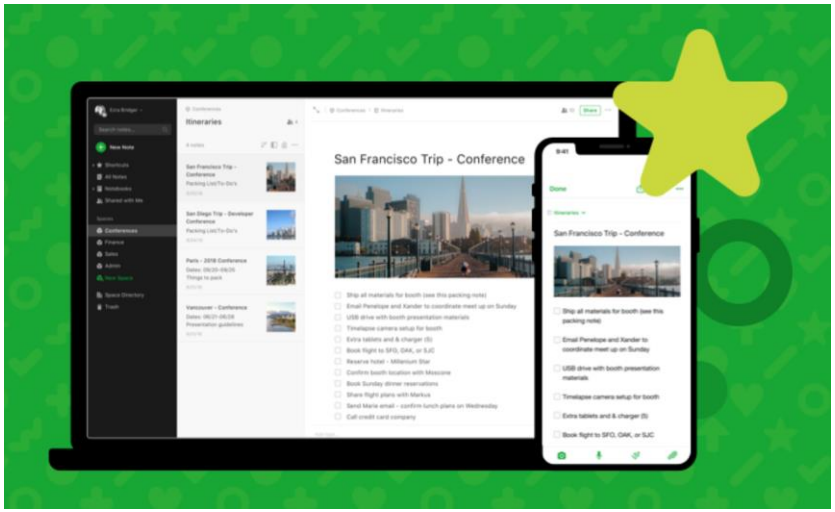
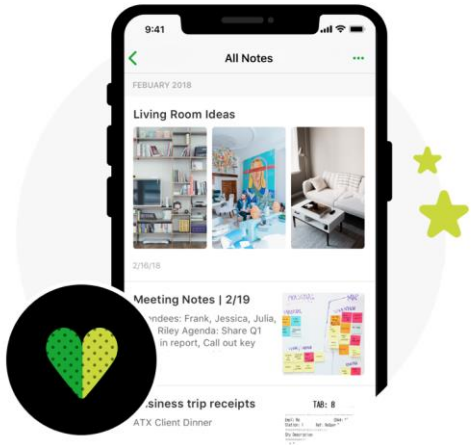
Wunderlist



Wunderlist.com

Evernote





Evernote.com

What does balance mean to you?

Health - oriented

Relaxation

Apps for Health

Sleep Cycle

- Available on iOS and android
- Free, with in-app purchases
- Improves your rest by waking you in a natural way in the lighter part of your sleep cycle
- Analyzes your sleep patterns to provide you with objective data on your sleep patterns (length of sleep, time spent on each part of the cycle, snoring, percentage sleep)

Map My Walk / Map My Run

- Available on iOS
- Free, with in-app purchases
- Tracks your walking/running data including steps, mileage, path/route and adds data so that you can see how far you've walked/ran each week, each month and annually

Fitbit

- Available on iOS, Android, and Windows
- Free, with in-app purchases
- Track steps, sleep, exercise, water, weight loss, food, heart rate
- Great for connecting with friends
- Badges and Trophies

HEADSPACE

Apps for Relaxation

Headspace

- Available on iOS, android
- Free, with in-app purchases
- Meditation app: “Meditation made simple”
- Guided meditations with content for all ages, children to adults
- Themed meditations from stress to sleep

Gratitude- Happiness Journal

- Available on iOS
- Free, with in-app purchases
- Provides prompts if needed
- Higher levels of positive emotion
- More joy, optimism and happiness
- Can customize in various ways

Insight Timer

- Available on iOS, android
- Free
- Features more than 4,000 guided meditations from over 1,000 teachers—on topics like self-compassion, nature, and stress—plus talks and podcasts

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References

- https://www.businessnewsdaily.com/2779-apps-work-life-balance.html
- https://techspirited.com/positive-effects-of-technology-on-society
- https://thestir.cafemom.com/being_a_mom/215456/work-life-happy
- www.theHappyMD.com

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Break Time

Demonstration Stations

Join groups for additional practice

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