Goals of session:

- By the end of the session the attendees will recognize strengths and limitations of podcasts for medical education (see video content!)
- During the session attendees will demonstrate the use of basic software and hardware used for podcasting.
- During the session attendees will plan a podcast segment based on best available evidence for educational podcasts

Session timeline:

Introduction 8:00-8:20	Briefly cover the prevalence of podcast use, evidence of efficacy, why people listen and what we know about best practices.	
	Introduce facilitators and hardware	
Recording 8:20-8:55	Small groups will outline and record a short podcast segment.	
Wrap-up 8:55-9:30	Listen to examples and large group Q&A (the best part)	

More information:

All of our handouts and much more are available at

http://medpodcasting.org

- Videos:
 - Pediatric Podcasts: Growth of an Educational Medium in Medicine
 - o MedEd Podcasting: Why Do We Listen and What Works?
- Session Worksheet
- List of pediatric podcasts
- Gear menu
- Recording and Editing Tips (via Pedscases)
 - o Includes links to instructional videos for Audacity and Garage band.
- Academic Promotion and Podcasting
- Handout for podcast guests (via Pediatrics on Call)



Planning your Podcast Episode

During this session, you will be creating a short podcast episode with your group. You will learn how to use the necessary hardware and software with the guidance of one of our facilitators. Please don't worry too much about being an expert in the topic; the goal here is to go through the steps of production so you feel comfortable and can reproduce it later at home. At the end, if you would like we will post all the podcasts online so you can share them with your colleagues!

Production Guide:

- 1. As a group, choose a topic you feel comfortable discussing for 3-5 minutes. This could be a diagnosis, common clinical question, or your own research interest.
- 2. Assign each member of your group a role:
 - a. Researcher: will look up facts for the script and verify facts stated in recording
 - b. Writer: outlines the script; keeps time during practice and recording
 - c. Engineer: sets up mics and recording software
 - d. Speakers: determine if you will have a conversation style or interview style
 - e. Marketing: plan when/how/where you will share your podcast
- 3. Use the worksheet below to plan out your episode as a group. Then, following your assigned roles, get started with your tasks.
- 4. Rehearse your podcast and time it before recording. Aim to keep the episode less than 5 minutes long.
- 5. Record your episode with the help of your facilitator.
- 6. Edit your episode (a facilitator will help).
- 7. Export the audio file and get ready to share!

Podcast prep worksheet:

Podcast title:				
Episode title:		<u>-</u>		
Intended audience:				
□ Clinicians □ Parents/patients □ Researchers □ Industry □ Other				
Will there be a guest on this e	pisode? Yes	No		
This guest adds:	-	uence Diversity of thought		
	□ Crossover promotion	□ Other:		
Assign roles (some people may	fill more than one role):			
Researcher:	Writer:	Engineer:		
Speaker 1:	Speaker 2:	Marketing:		
Anticipated length of episode (minutes):				
Learning goals for this episode (can be reinterpreted at end as take-away points too):				
1				
2				
This episode will be a success	if:			

How will you introduce the episode to your learners? What do they need to know upfront?

Interview questions:

(budget approximately 1-2 minutes per interview question)

1.

2.

3.

Recording tips:

Recording Space

You can create a reasonable space to record a podcast in your own home. Hard surfaces like walls, windows, mirrors, and hardwood floors create a lot of echo. Soft surfaces like carpet, cushions, blankets or clothing. A popular space to record is inside a closet.

Use headphones

Use regular wired headphones when recording.

Microphone position:

There is variability between microphones but generally the distance from your mouth the microphone can be the length of the width of one to two hands. You generally will want to be just a little off axis. (see videos below for details or ask your facilitator)

Pop Filter:

Reduces plosives which are caused by air hitting the microphone. Hold your hand in front of your mouth and say the "podcast" for an example. For many microphones you will want to use a pop filter or a foam cover.

Recording tips from Pedscases:

- Audacity tutorial: https://youtu.be/I6rONHjzcY0
- GarageBand tutorial: https://youtu.be/5BFhpAyjJIQ

Editing the Recording

Clip out any prolonged pauses or mistakes. See videos for examples of adjusting levels.

Export the Audio

See links to instructions on online version of this handout

Tips from the literature

Much of the evidence here is described in more detail in our videos online. None of this is hard and fast but just some ideas. Full citations on the webpage.

Citations on the webpage.				
Format				
Summarize and re-iterate important points 2. 3.	This preferred by learners (Riddell et al. 2020) and most people often listen while doing other things and about 20% use over 1x speed (Roland et al. 2021).			
O O Use dialog	Dialog preferred by learners (Riddell el al. 2020)			
Use your natural voice	Natural appealing voices are better for learning in multimedia literature. (Mayer 2021)			
Interpolated questions "So let us stop and test your memory a bit here The first randomized controlled trial in the history of medicine studied the effectiveness of?"	Demonstrated to improve post-test scores 1 month later. (Weinstock et al. 2022)			
Signpost and highlight important points E.g number important points, use verbal headers.	Preferred by learners (Riddell et al 2020) and shown to improve learning in multimedia literature. (Mayer 2021)			
Keep it short or break it up.	Learners prefer shorter content 10-20 min. (Cosimini et al. 2017) Segmentation improves learning in multimedia content. (Mayer 2021)			
Establish credibility Cite sources, call out expert opinion, and make COI clear.	Quality metrics for online education are available and can help you plan your podcast. (Colmers-Gray et al. 2019)			
Audio				
Record decent quality audio	Great audio is not necessary but poor audio is distracting			
Beyond the audio.				
Pair with active learning techniques	Find ways to interact with listeners outside of the unidirectional podcast (e.g. social media)			
Content (Riddell et al. 2020)				
Teach language and culture	Discuss nuance of topics with expert			
Inspire interest in a new topic	Be clinically relevant			

Can Podcast Creation "Count" for Academic Promotion

Of course! Otherwise why are we talking about it? Below we have listed some considerations for how to receive credit, how to discuss/display/demonstrate your work, how to track impact, and a big list of other resources on this topic. Many of the discussions and resources are NOT specific to podcasting, which is beneficial as rarely will you use only a single venue/type of product.

Rather than attempting to create the PERFECT guide, what we have gathered here are many resources on this subject from other experts in the field.

A few notes before moving onto the resources:

One of the hardest parts of successfully using digital products in an academic promotion is ensuring you can tell a strong story about why your work is impactful, who it reaches, how it is used, and how an external reviewer should know your work is meaningful. Much of the discussion in the following resources focuses on this component.

Disclaimer: We strive to keep this list updated and FOCUSED. It is not inclusive of all possible resources. If you find a resource you feel should be listed, please email jason.woods.md@gmail.com

Resources

Tools for tracking impact/reach

- Basic information available from the platform used to publish (i.e. blog, podcast host, social media etc)
 - Total views/downloads
 - Reviews/feedback: Most of the larger podcasting platforms (i.e. apple podcasts) have the ability for listeners to leave reviews and ratings. These are generally publicly available.
 - Social media if you have a social media account tied to the digital work you do, some of the available data can indicate reach
 - Profile visits
 - Impressions/Engagements each platform has different terms for these but generally have a statistic that allows you to see the number of items a post from your profile has been seen, and the number of times a post has been acted upon by a viewer (liking, retweeting/reposting, commenting)
- Alternative metrics
 - o Altmetric score
 - o PlumX
- Participation as a journal reviewer reviewing papers on this subject can show expertise in the use of digital products
 - o <u>Publons</u>
- Social Media Index A scoring system attempting to objectively evaluate website impact/reach in medical education
 - Validity evidence: Thoma B, Chan TM, Kapur P, et al. The Social Media Index as an Indicator of Quality for Emergency Medicine Blogs: A METRIQ Study. Ann Emerg Med. 2018;72(6):696–702.
 doi:10.1016/j.annemergmed.2018.05.003

Creating "Dissemination Portfolios"

Be careful, as each institution may already have guidelines on how these should be formatted, as many will expect them to follow a traditional "teaching portfolio" format.

The following article provides a discussion on a "social media" portfolio

 Cabrera D, Vartabedian BS, Spinner RJ, Jordan BL, Aase LA, Timimi FK. More Than Likes and Tweets: Creating Social Media Portfolios for Academic Promotion and Tenure. J Grad Med Educ. 2017 Aug;9(4):421-425. Open Access

Scoping review on the use of medical education portfolios

Hong DZ, Lim AJS, Tan R, Ong YT, Pisupati A, Chong EJX, Quek CWN, Lim JY, Ting JJQ, Chiam M, Chin AMC, Lee ASI, Wijaya L, Cook S, Krishna LKR. A Systematic Scoping Review on Portfolios of Medical Educators. J Med Educ Curric Dev. 2021 Mar 24;8:23821205211000356. doi: 10.1177/23821205211000356.

Guidelines for Promotion (and P&T Committees)

 Husain A, Repanshek Z, Singh M, et al. Consensus Guidelines for Digital Scholarship in Academic Promotion. West J Emerg Med. 2020;21(4):883-891. Published 2020 Jul 8. doi:10.5811/westiem.2020.4.46441

Quality indicators for blogs and podcasts

- Lin M, Thoma B, Trueger NS, Ankel F, Sherbino J, Chan T. Quality indicators for blogs and podcasts used in medical education: modified Delphi consensus recommendations by an international cohort of health professions educators. Postgrad Med J. 2015;91(1080):546–550. doi:10.1136/postgradmedi-2014-133230
- Thoma B, Chan TM, Paterson QS, Milne WK, Sanders JL, Lin M. Emergency Medicine and Critical Care Blogs and Podcasts: Establishing an International Consensus on Quality. Ann Emerg Med. 2015;66(4):396–402.e4.
 doi:10.1016/j.annemergmed.2015.03.002

Social Media and Promotion

- Chan TM, Stukus D, Leppink J, Duque L, Bigham BL, Mehta N, Thoma B. Social Media and the 21st-Century Scholar: How You Can Harness Social Media to Amplify Your Career. J Am Coll Radiol. 2018 Jan;15(1 Pt B):142-148 Open Access
- Chan T, Trueger NS, Roland D, Thoma B. Evidence-based medicine in the era of social media: Scholarly engagement through participation and online interaction. CJEM. 2018;20(1):3–8. doi:10.1017/cem.2016.407
- Johng SY, Mishori R, Korostyshevskiy VR. Social Media, Digital Scholarship, and Academic Promotion in US Medical Schools. Fam Med. 2021;53(3):215-219. https://doi.org/10.22454/FamMed.2021.146684.
- Avital O'Glasser has some tips for <u>social media on your CV</u>
- David Stukus, Mike Patrick, and Kathryn Nuss have a book about social media in medicine, available here

Additional References

• Daniel Cabrera has a large list of resources on these topics, available here