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State of Telemental Health Moderator: Elizabeth Krupinski, PhD, FATA Jay Shore, MD, MPH; Matt Mishkind, PhD

Colorado Innovations in Healthcare Scientific Meeting: Telehealth and Technology Advances for Mental Health Care University of Colorado – Anschutz Medical Campus: Elliman Conference Center

August 17, 2023

DISCLOSURES

The content of this presentation does not represent an official position, policy, endorsement, or opinion of any of the organizations with which the presenters are affiliated.

Dr. Shore is Chief Medical Officer of AccessCare Services which provides Telemental health services in Colorado and Alaska and receives royalties from American Psychiatric Press and Springer Press.



Tele-Behavioral Health: A play in 3 Acts

• ACT I: The Hurricane

• ACT II: The Plague

• ACT III: The Undiscovered Country







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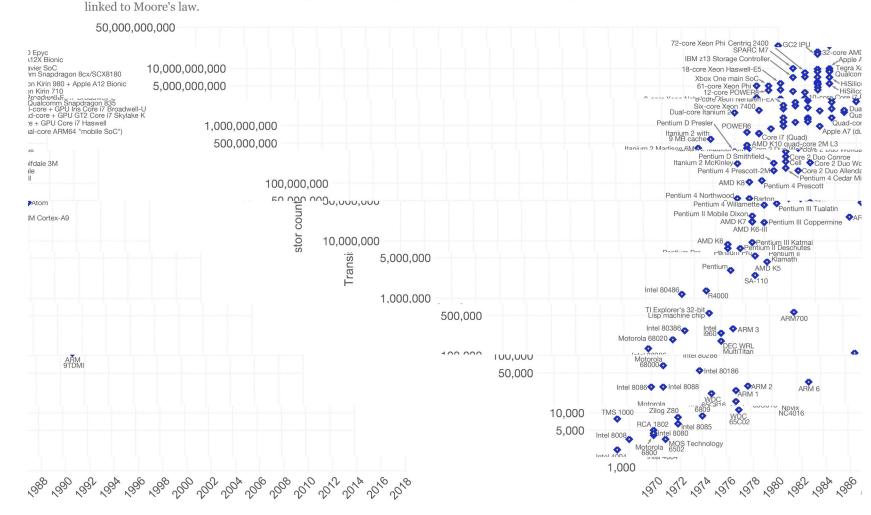




Moore's Law – The number of transistors on integrated circuit chips (1971-2018)



Moore's law describes the empirical regularity that the number of transistors on integrated circuits doubles approximately every two years. This advancement is immortant as other aspects of technological progress.— such as processing speed or the price of electronic products — are



ount) ou find more visualizations and research on this topic. Licensed under CC-BY-SA by the author Max Roser. Data source: Wikipedia (https://en.wikipedia.org/wiki/Transistor_c The data visualization is available at OurWorldinData.org. There ye







DIGITAL NATIVES VS. DIGITAL IMMIGRANTS





DIGITAL IMMIGRANTS

- Use Internet for information second rather than first
- Print out email
- Share computer content in-person
- Learn slowly, step-bystep, one thing at a time





DIGITAL NATIVES

- Parallel processing & multitasking
- Prefer graphics & visuals
- Instant gratification & rewards
- Prefer to be networked
- Learn with information fast, presented in a random fashion





the Chrome icon ...

Based on Mark Prensky's "Digital Natives, Digital Immigrants." <u>http://www.marcprensky.com/writing/Prensky%20-</u> <u>%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf</u>. Accessed 12/30/2016. Icons are open-source under SIL OFL 1.1 license. Font Awesome by Dave Gandy, <u>http://fontawesome.io</u>





25 Cents April 1924 Over 200 Illustrations

THE RADIO DOCTOR - Maybe!



Edited by H.GERNSBACK

THE 100% RADIO MAGAZINE



Department of Psychiatry school of medicine university of colorado **anschutz medical campus**





*Telepsych photos from UNMC Archives, Special Collections Department, McGoogan Library of Medicine, University of Nebraska Medical Center, Omaha, Nebraska

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Practice Guidelines for Videoconferencing-Based **Telemental Health** August 2009

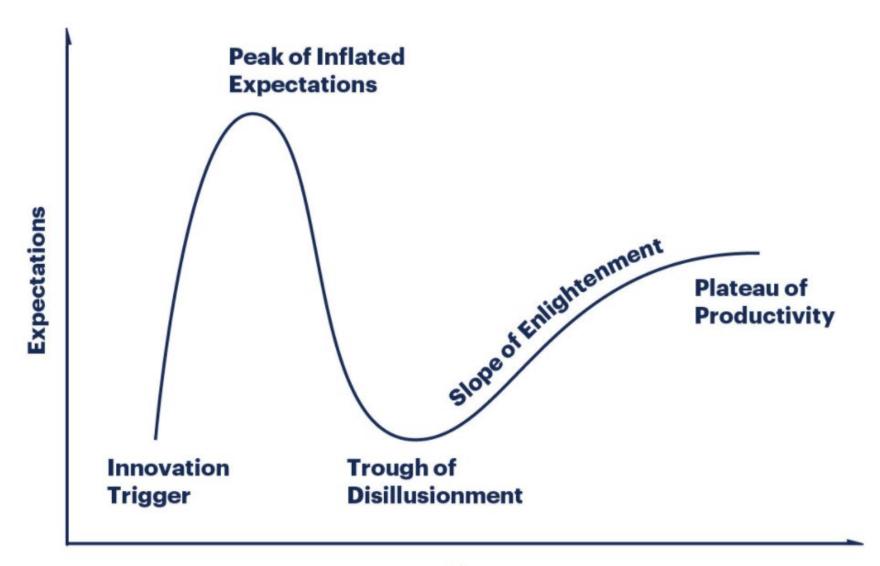






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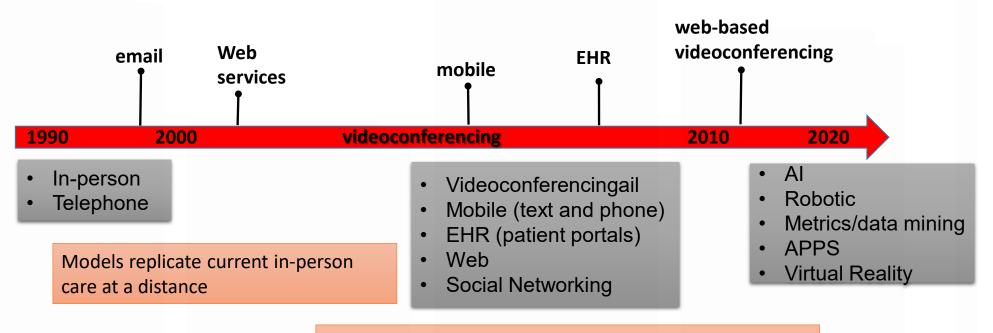


Time



https://www.gartner.com/en/research/methodologies/gartner -hype-cycle

FIGURE 1: EVOLUTION OF TELEPSYCHIATRY PRACTICE MODELS



Improved care through enhanced models across different modalities-, mobile, integrated care, team-based.

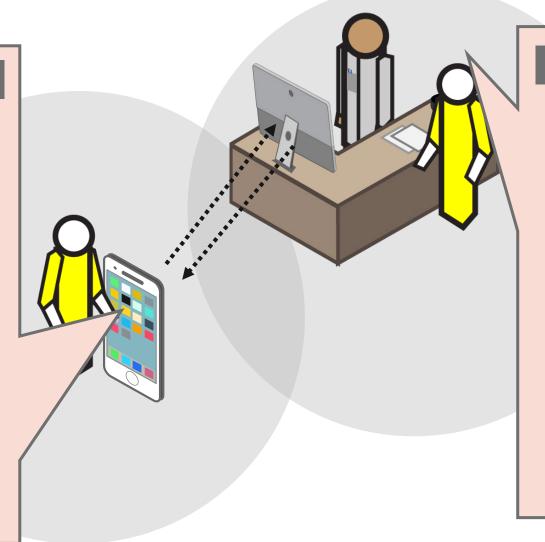
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Shore, J. H. (2019). Best Practices in Tele-Teaming: Managing Virtual Teams in the Delivery of Care in Telepsychiatry. *Current psychiatry reports*, *21*(8), 77.

HYBRID CARE

VIRTUAL SPACE

- Advantage for those with avoidant behavior, PTSD, and anxiety
- Convenient & immediate
- Provider can observe patient in their environment
- Indirect & off-hours
 care opportunities
- Modalities include videoconferencing, email, text messaging & telephony



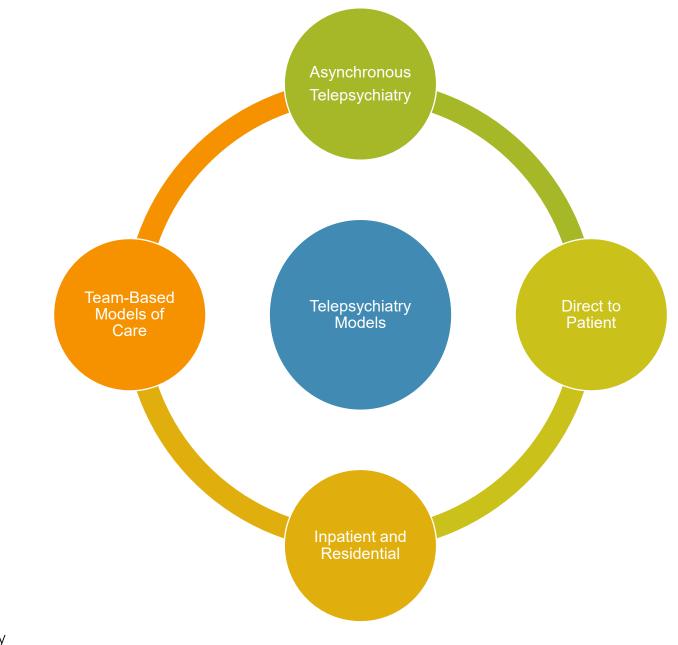
PHYSICAL SPACE

- Traditional in-person gold standard
- Immediacy & trust in interpersonal interaction
- Physical boundaries can be set for therapeutic frame
- Ample research and practice guidelines available for healthcare in the physical space



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Diagram and illustrations by @StevenChanMD. Content based on Peter Yellowlees &





managers, and patients can interact at a A psychiatrist manages case managers (or coordinators or navigators) distance using these HIPAA-compliant methods. who interact with patients, gather collateral, process paperwork, and help patients navigate a complex health system. Messaging apps **IN-PERSON VISITS** Questionnaire apps Medication adherence apps **PSYCHIATRIST CASE MANAGERS** PATIENTS Videoconferencing Video & audio messaging **JSIV NC** E-mail Post office mail N-PERS Patient web portals Б PRIMARY CARE REV Internet-delivered therapy Internet-delivered education Fax Telephone & voicemail **IN-PERSON VISITS**

REMOTE COMMUNICATION TECHNOLOGIES

Psychiatrists, primary care providers, case

by @StevenChanMD. Icons are open-source under SIL OFL 1.1 license. Font Awesome by Dave Gandy, http://fontawesome.io

POPULATION HEALTH and COLLABORATIVE CARE

Population management is a form of indirect (or asynchronous) care.

Critical Health Care trends and Risks impacting psychiatry pre-COVID

- Mental Health and Psychiatry workforce needs
- Value based payment reform
- Health Care Consolidation
- Burnout
- Healthcare disparities and social determents of health

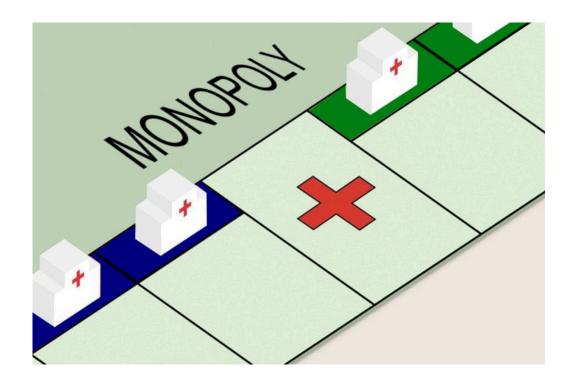
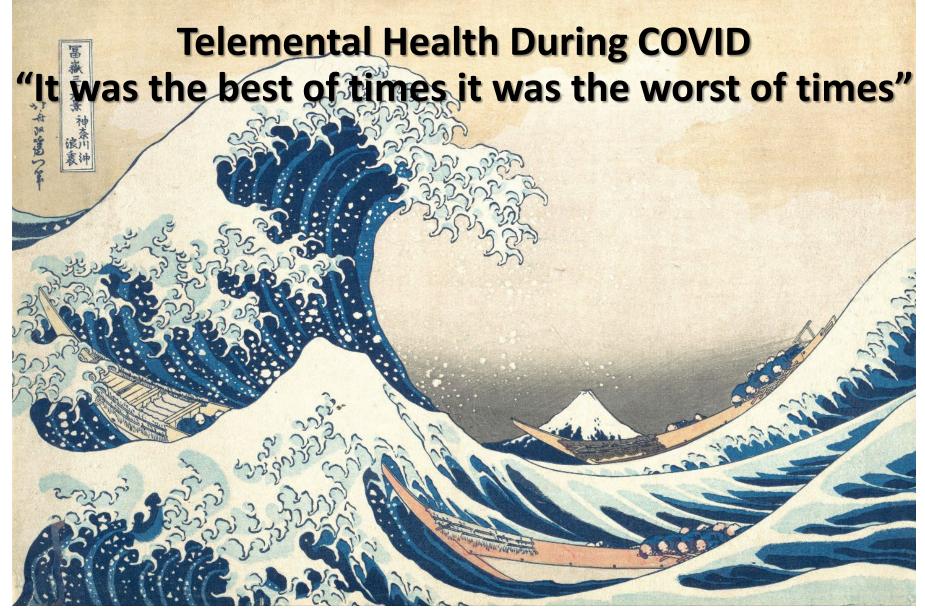


Image https://thecapitolist.com/state-lawmakers-embrace-trump-agenda-break-up-health-care-monopolies









... there's no question of heroism in all this. It's a matter of common decency. That's an idea which may make some people smile, but the only means of righting a plague is, common decency.

"What do you mean by 'common decency'?" Rambert's tone was grave.

I don't know what it means for other people. But in my case I know that it consists in doing my job.

-Albert Camus the Plague

United states March 2020: supersonic change

- 1. Pervasive deployment of telehealth and telepsychiatry
 - Video-conferencing and enabling technologies
- 2. Rapid virtualization of operation
 - Collection of technologies and systems





Come ride COVID the Regulatory Rollercoaster



AREA	Pre-COVID	COVID	Post-COVID
State Licensure	Licensed where patient is located (with some federal exemptions)	State by state exemptionsSite of practice issues	Reverted
Federal Regulations of Prescription of Controlled Substances (Ryan Haight Act)	In-person exam required	 In-person exam requirement waived 	Extended until November 2023 and November 2024 Pending Potential New Regulations, TBD
Billing and Re-imbursement for Telepsychiatry	 Limits on billing (codes type, provider type, location, technology) 	 Additional codes Additional locations Phone visits Additional provider types 	Expansion from Pre-Covid
HIPPA Compliant Technology	Technology must be HIPPA complaint	Enforcement currently at "discretion"	Reverted
Trainee Supervision	In person with some rural exemptions	• virtual	Reverts December 2023



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The Digital Divide

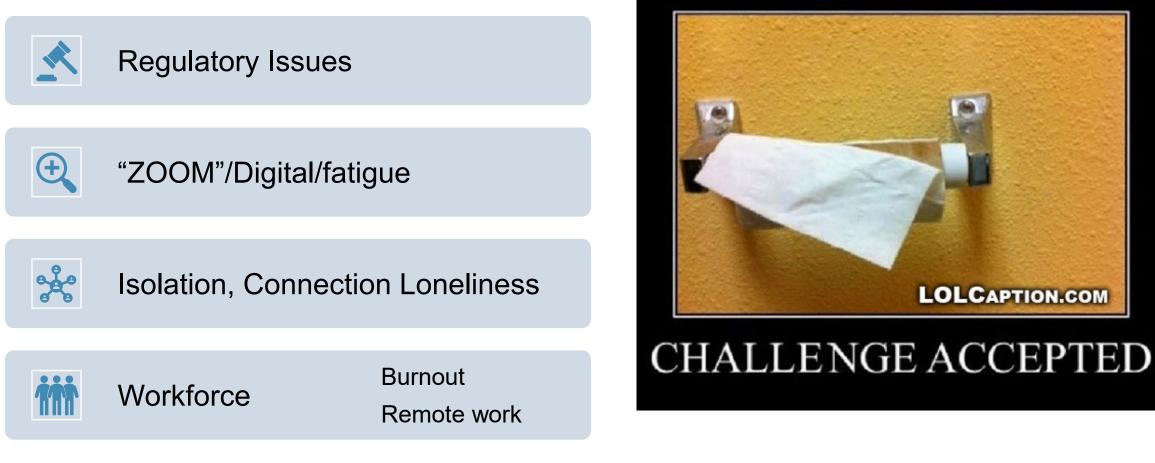
- Broadband Access
- Technology
- Tech Literacy
- Tech Support







COVIDs Continued Challenges



LOLCAPTION.COM



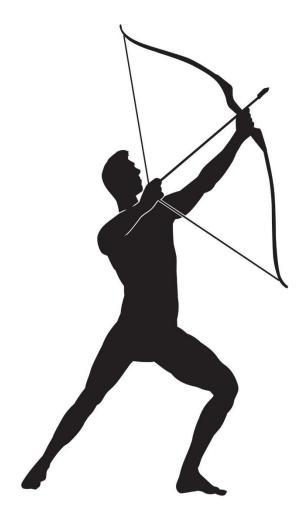
AI: Neither Artificial nor Intelligent?

- 2023 Dawn of a new era?
- Sharp divide between expectations/vision vs current use and function
- Al Anxiety



Machine Learning and Telehealth Potential

- Smart EHR
- Documentation Assistance
- Logistic Coordination
- Translation
- Body Language Translation
- Care Coordination
- Treatment Execution

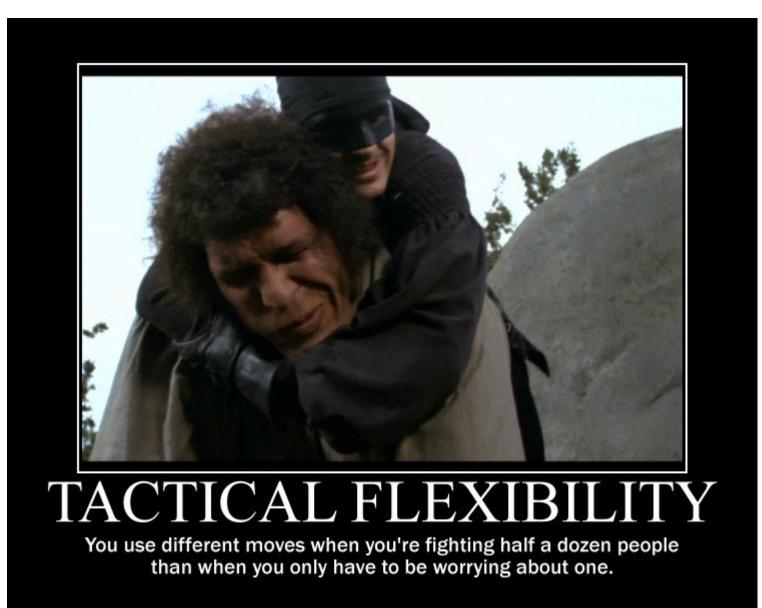






https://towardsdatascience.com/predicting-future-medical-diagnoses-with-rnns-using-fast-ai-api-from-scratch-ecf78aaf56a2

https://www.augmentedmentalhealth.com/blog/manifesto-for-augmented-mental-health





	Key Considerations			
Medium	Administrative	Operational	Clinical	
Email or text messages	Compliance with Health Insurance Portability and Accessiblity Act-mandated security and encryption of communication	Rules around timing of response and communication (eg, accounting for delays); documentation of email and text communication (eg, if, where, and how these become part of the medical record)	Awareness of differences in email vs in-person communication style and meaning of text-based and symbol-based communication (eg, emojis); management of virtual disinhibition	
Videoconferencing	Jurisdictional issues associated with licensure, standard of care, malpractice, and prescribing	Creating telepsychiatry services tailored to patient settings while attending to administrative considerations specific to those settings; creating sufficient emergency protocols for patient environment	Adapting clinical style to patient and patient setting; managing virtual space, awareness of virtual disinhibition, rapport, and distraction, especially in patient's home or office environment; clinician awareness of resources, cultural issues, and environmental factors affecting patients in remote environments with which clinicians may not have familiarity	
Web-based patient portals	Security and encryption; who can access a portal and how users are identified	Rules of interaction, taking into account the function or purpose of the portal, which should be clearly communicated between clinician and patient (eg, communication vs treatment facilitation, such as electronic health record portal vs web-based therapy platform); roles of users and who has access (eg, clinicians, ancillary staff)	Timing of communication (eg, delays); clarity around what content is addressed vs not addressed on portal	
Social networks	Ownership and sharing of data from networks (eg, public vs private vs professional networks)	Who has access to information (eg, clinicians, patients, contacts on network, network administrators); settings on devices for what the networks can access (eg, telephone address book, contacts)	Professional boundaries, segmentation of professional vs personal social networking; professional reputation management	

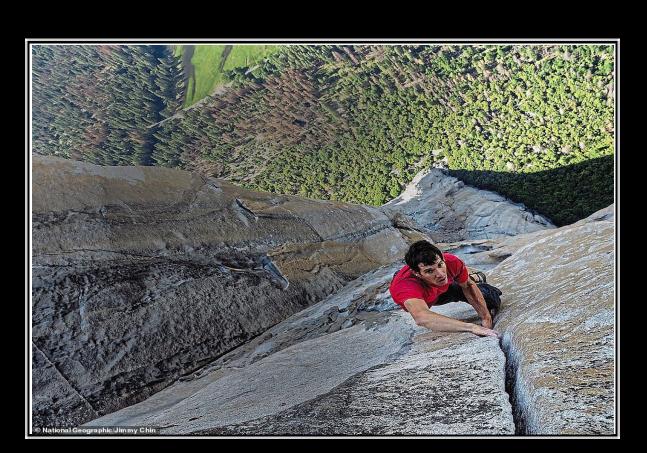
Table. Progressive 3-Step Framework's Key Considerations by Common Technologies



Shore, J. H. (2020). Managing Virtual Hybrid Psychiatrist-Patient Relationships in a Digital World. JAMA psychiatry, 77(5), 541-542





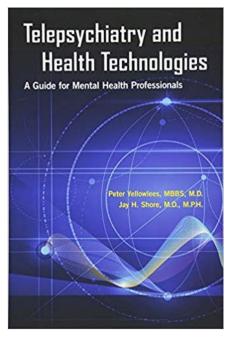


It always seems impossible until it is done –*Nelson Mandela*



Key resources/REFERENCES

- APA Telepsychiatry Toolkit: <u>https://www.psychiatry.org/psychiatrists/practice/teleps</u> <u>ychiatry</u>
- Shore, J. H. (2020). Managing Virtual Hybrid Psychiatrist-Patient Relationships in a Digital World. *JAMA psychiatry*, 77(5), 541-542
- Shore, J. H., Schneck, C. D., & Mishkind, M. C. (2020). Telepsychiatry and the Coronavirus Disease 2019 Pandemic—Current and Future Outcomes of the Rapid Virtualization of Psychiatric Care. JAMA psychiatry.
- Yellowlees, Shore <u>Telepsychiatry and Health</u> <u>Technologies: A Guide for Mental Health Professionals,</u> <u>APPI Press, 2018.</u>









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