

تَعَوَّذُوا بِاللَّهِ مِنَ كُلِّ أَسَاسٍ

الرَّحْمَنُ الرَّحِيمُ الْمَلِكُ الْقُدُّوسُ السَّلَامُ الْمُؤْمِنُ الْمُهَيَّبُ الْعَزِيزُ الْجَبَّارُ الْمُتَكَبِّرُ
الْقَلْبُ الْبَاطِنُ الْبَاطِنُ الْقَلْبُ الْبَاطِنُ الْقَلْبُ الْبَاطِنُ الْقَلْبُ الْبَاطِنُ الْقَلْبُ الْبَاطِنُ
الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ
الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ
الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ
الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ
الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ
الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ
الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ الْبَاطِنُ



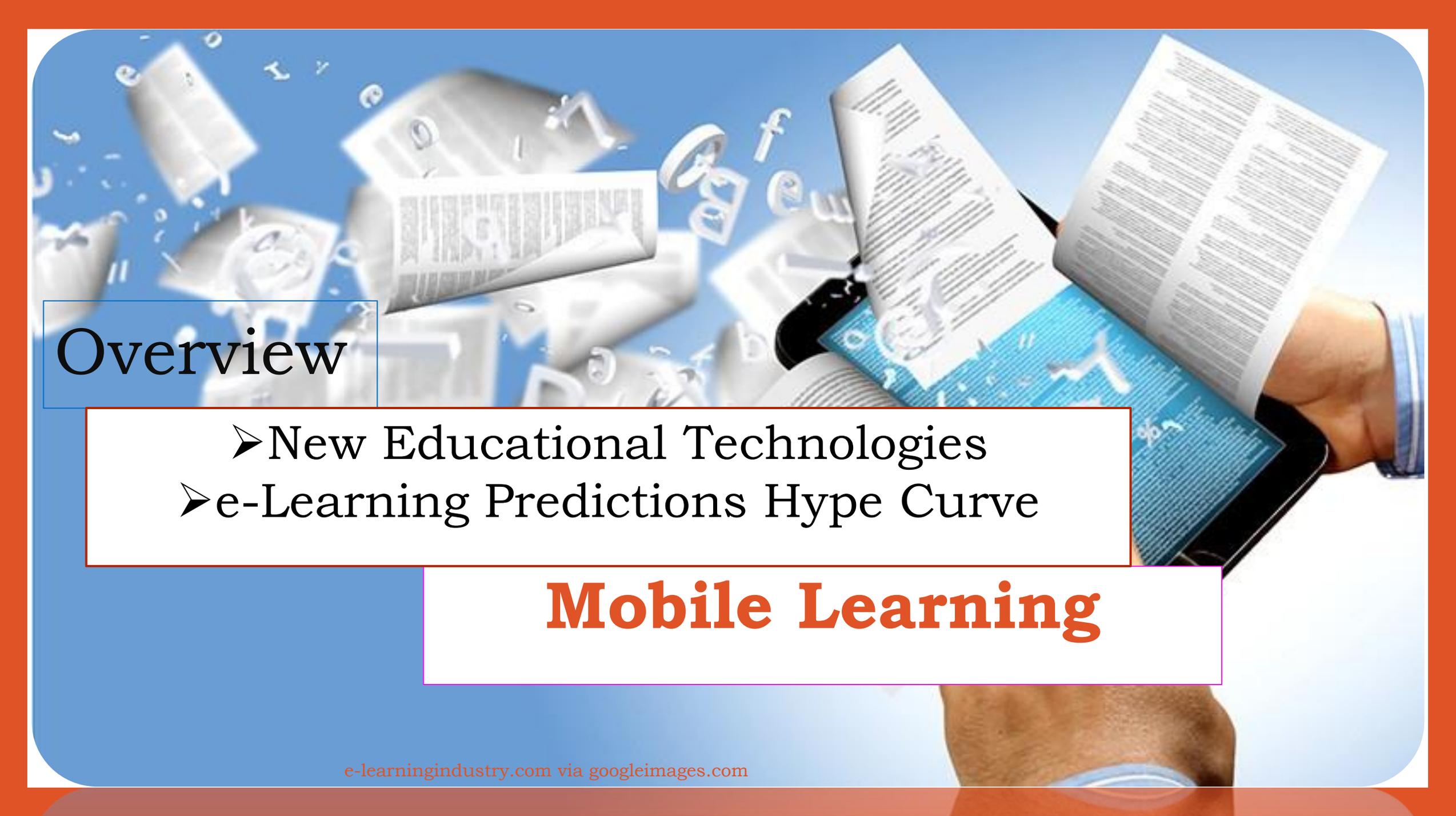
<https://www.freeimages.com/search/tablet/6>

MOBILE LEARNING



Dr. Shoaleh Bigdeli,

**Associate Professor, Department of Medical
Education, School of Medicine, Iran University of
Medical Sciences (IUMS), 2020**



Overview

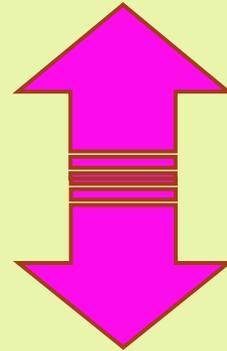
- New Educational Technologies
- e-Learning Predictions Hype Curve

Mobile Learning



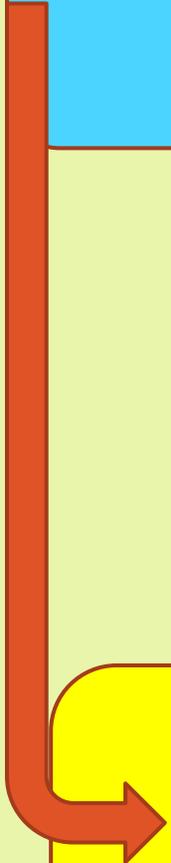
Demand for accountability

in Medical Education

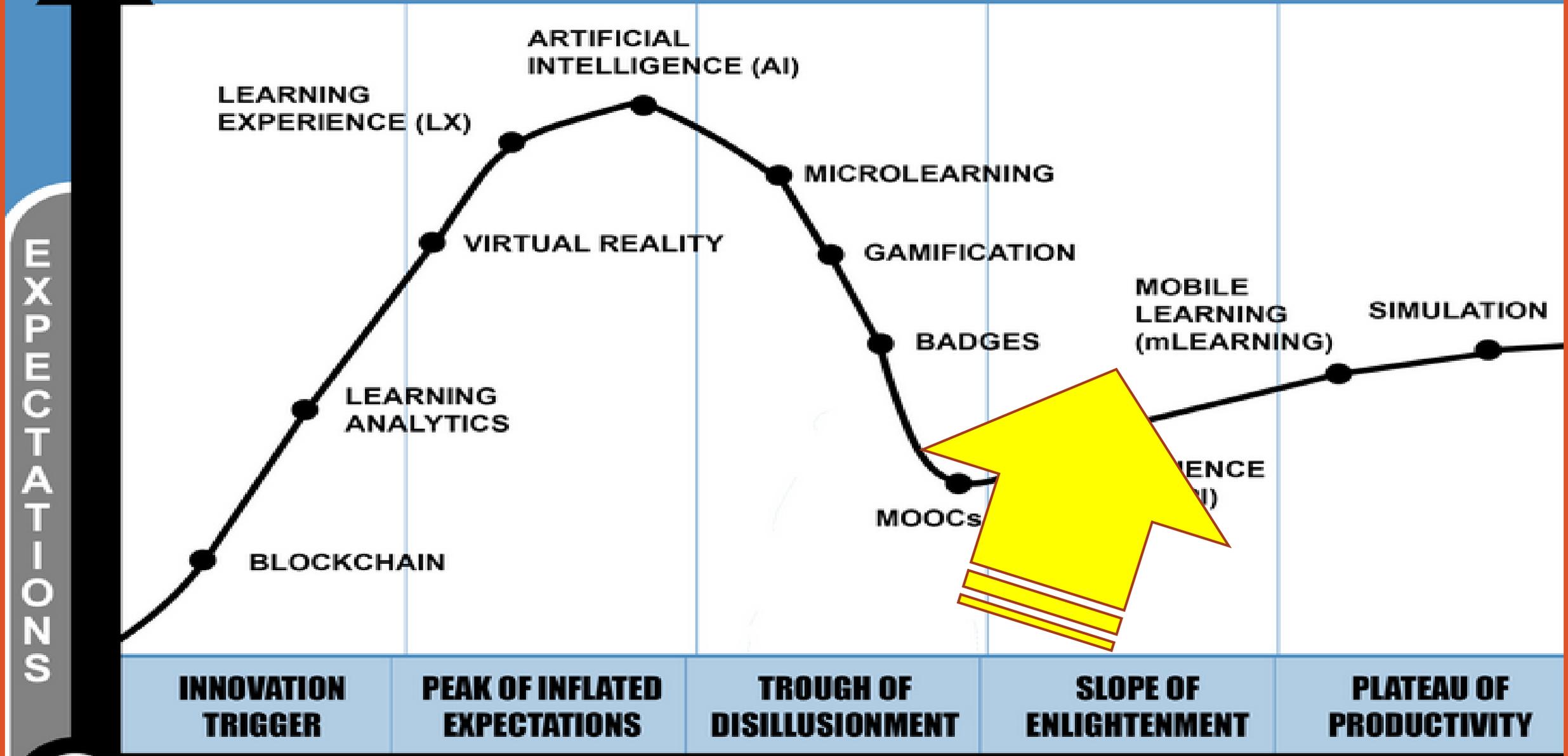


focus on

Improved teaching and learning



2019 eLEARNING PREDICTIONS HYPE CURVE



Mobile Learning:

Definition/Advantages/Disadvantages/Challenges



<https://www.freeimages.com/search/advantage>



<https://www.freeimages.com/search/advantage>



<https://www.freeimages.com/search/challenge>



<https://www.freeimages.com/search/challenge?free=1>

Mobile Learning/m-Learning

Use of handheld mobile devices

(e.g. smartphones, tablets, laptops)

in

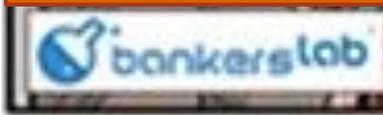
education

TRADITIONAL TRAINER

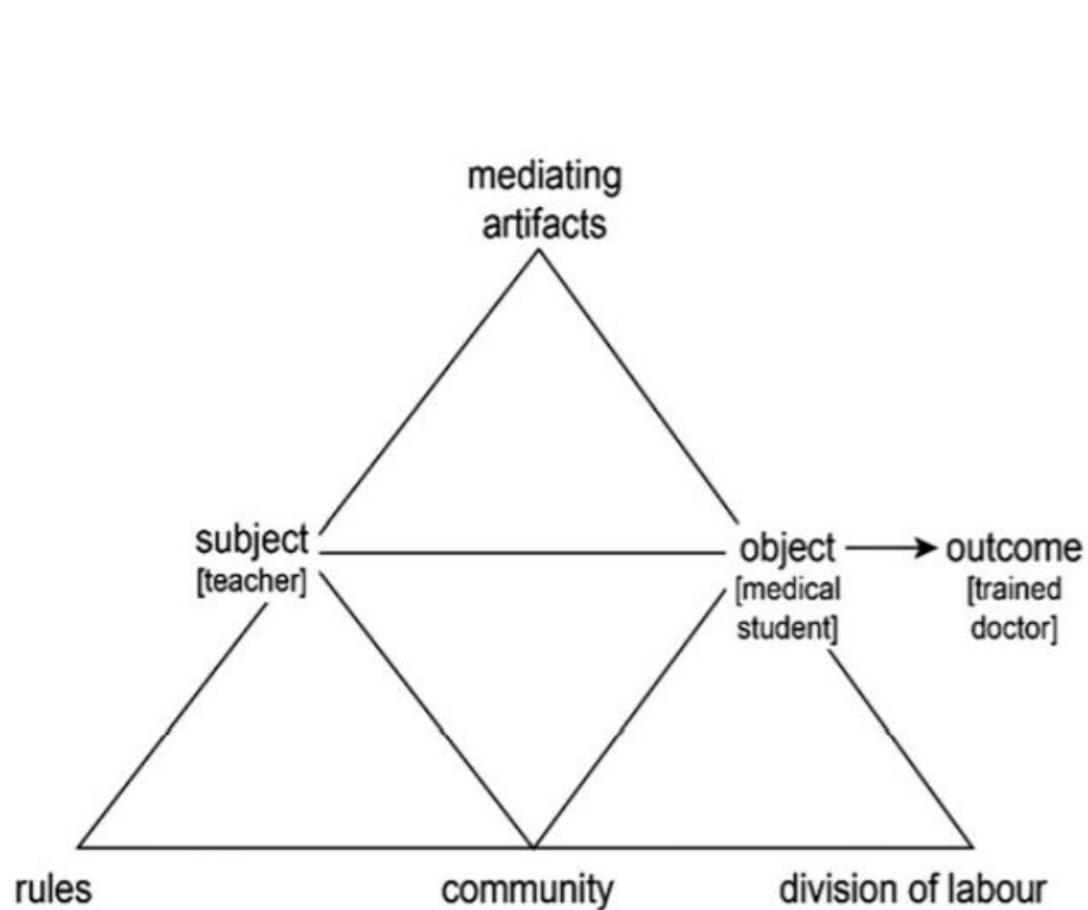


What do you see?
How do you feel?

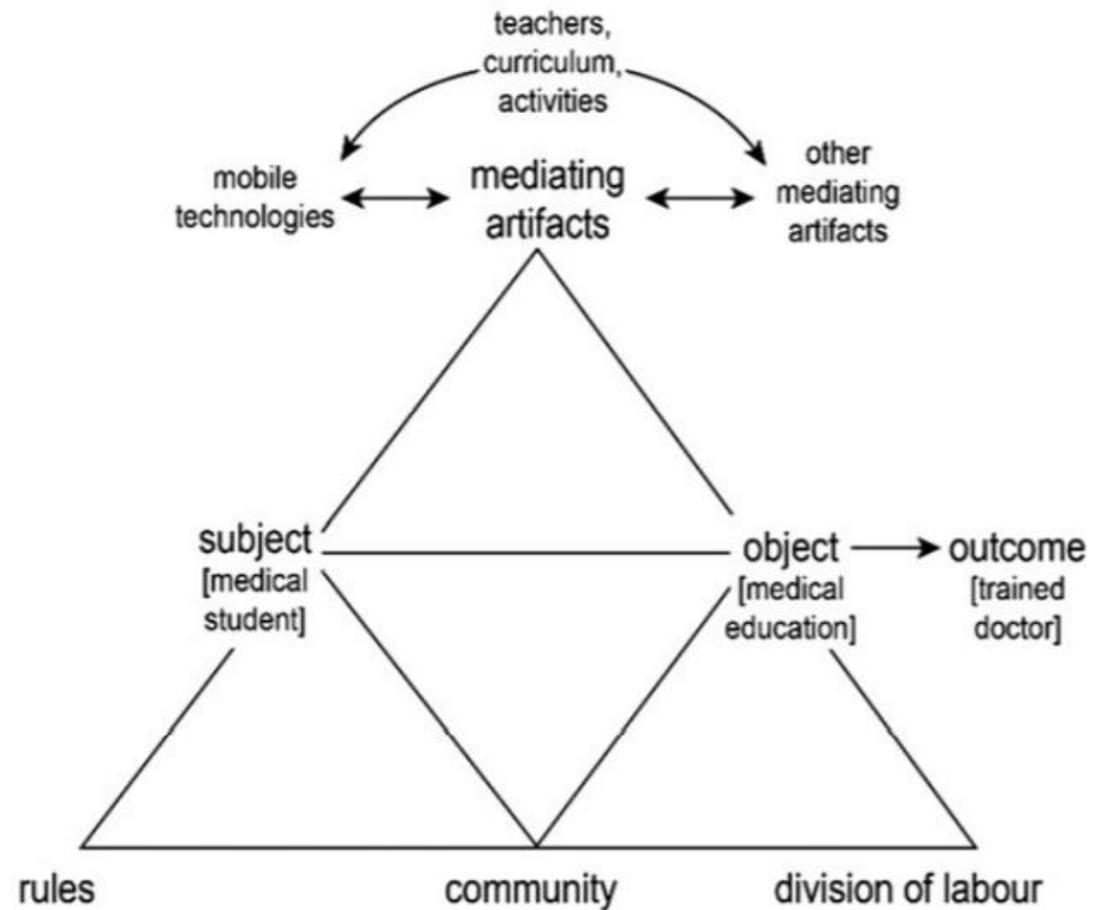
What do you see?
How do you feel?







teacher-centric activity system



learner-centric activity system

Ken Masters, Rachel H. Ellaway, David Topps, Douglas Archibald & Rebecca, J. Hogue (2016) Mobile technologies in medical education: AMEE Guide No. 105, *Medical Teacher*, 38:6, 537-549

Interconnected domains of using mobile technologies:

- mobile-enabled learning
 - mobile-enabled teaching
 - mobile-enabled medical practice
- all underpinned by
- everyday mobile-enhanced living



Human Brain

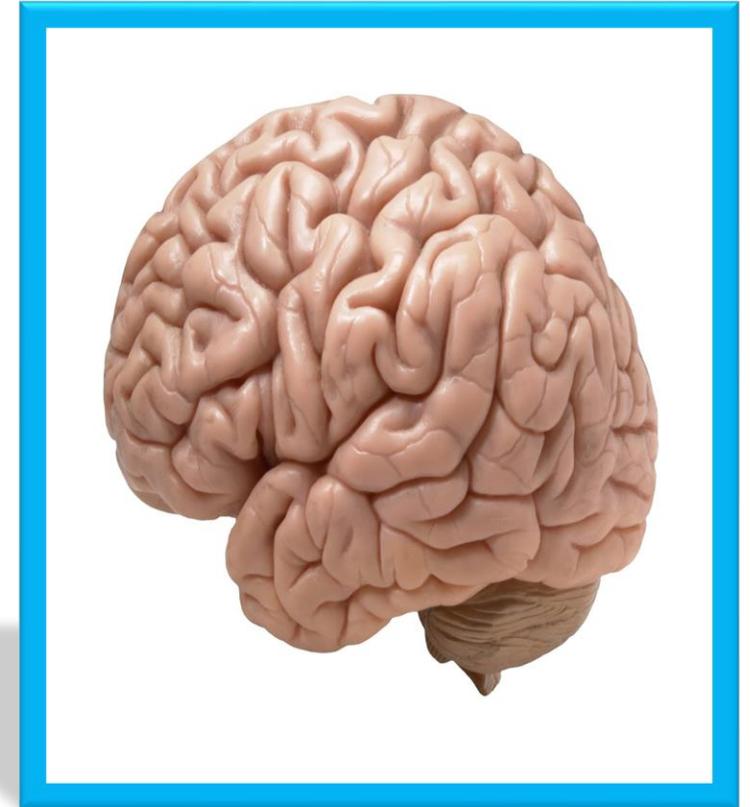
Collects

Stores

Processes

Information

- The major learning instrument
- This state that learning has always been mobile.



<https://www.freeimages.com/photo/no-description-1301831>



Anyone



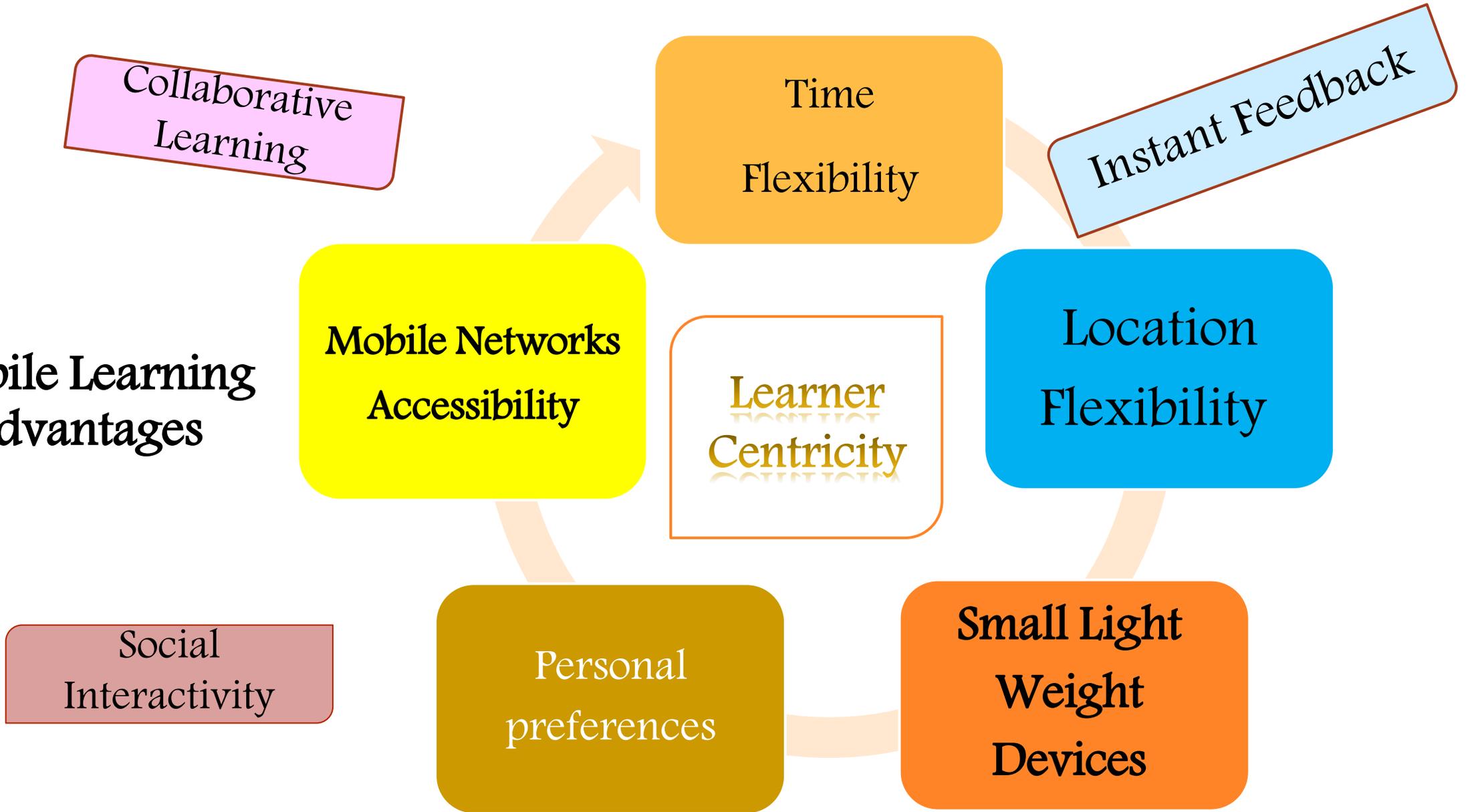
<https://www.freeimages.com/photo/shiny-brain-1150907>

Anywhere

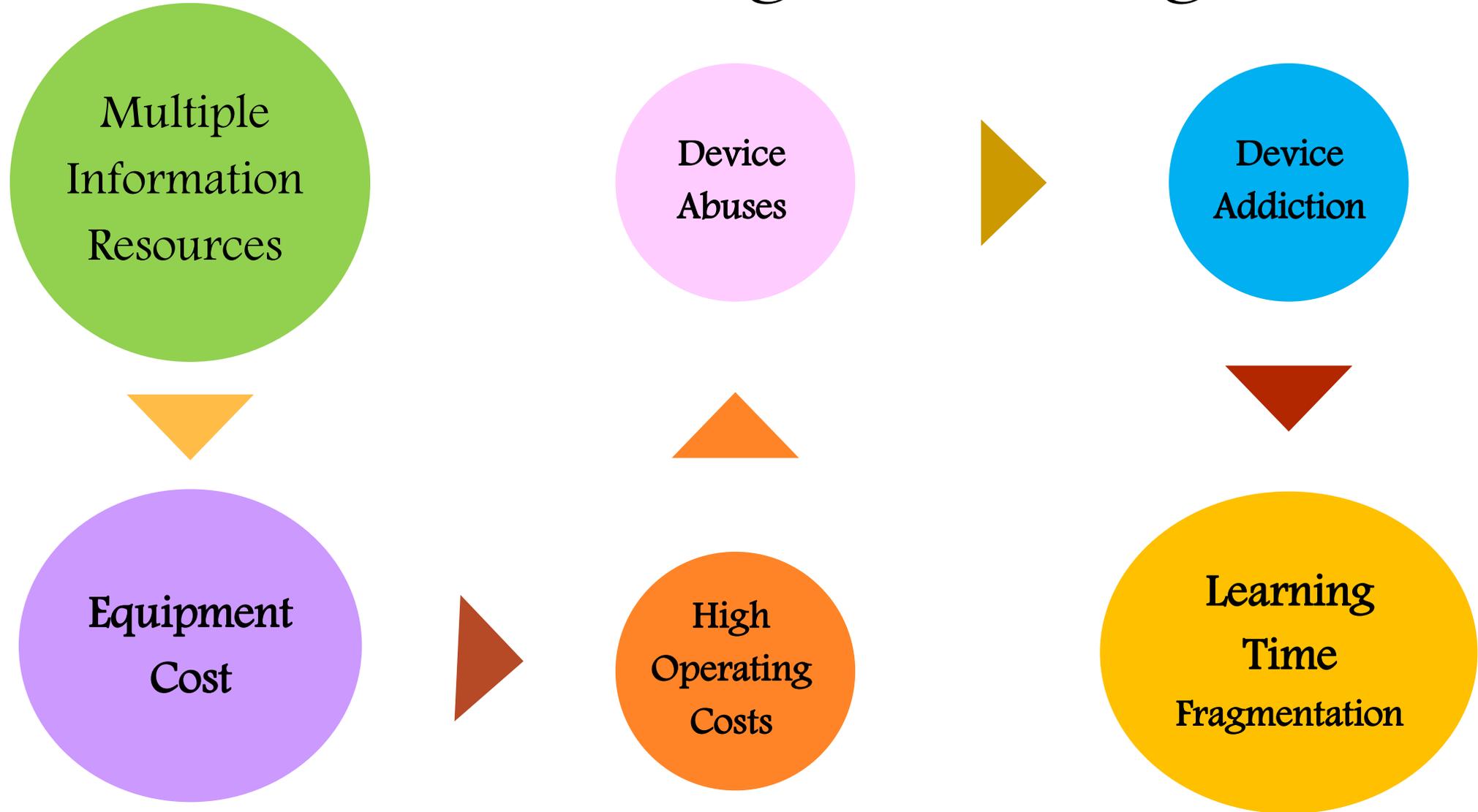
Anytime



Mobile Learning Advantages



Mobile Learning Disadvantages



Mobile Learning Challenges

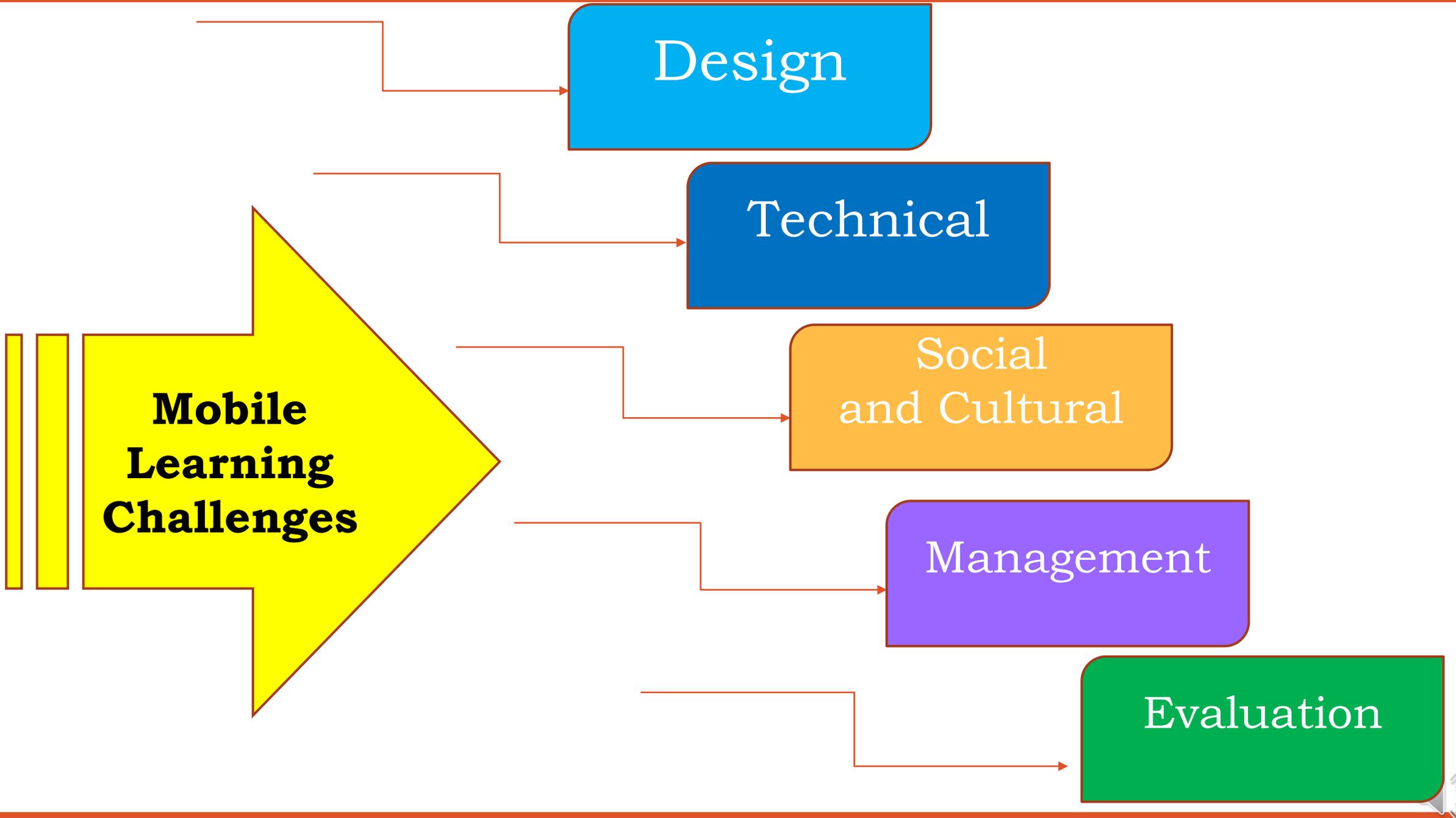
Design

Technical

Social and Cultural

Management

Evaluation



Guidelines

Institutes and Students
responsibility

Integration

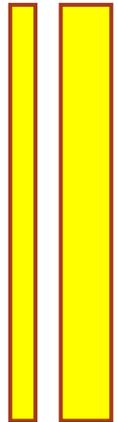
With Infrastructures and systems:
LMS, Portfolio, etc.

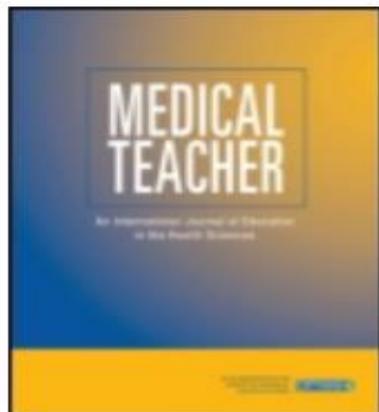
A Medical Informatics
Course

Teaching Basics of
App Development

Students as Learning
Content Producers

**To
Enhance
Mobile
Learning**





Medical Teacher

ISSN: 0142-159X (Print) 1466-187X (Online) Journal homepage: <http://www.tandfonline.com/loi/imte20>

Mobile technologies in medical education: AMEE Guide No. 105

Ken Masters, Rachel H. Ellaway, David Topps, Douglas Archibald & Rebecca J. Hogue

To cite this article: Ken Masters, Rachel H. Ellaway, David Topps, Douglas Archibald & Rebecca J. Hogue (2016) Mobile technologies in medical education: AMEE Guide No. 105, Medical Teacher, 38:6, 537-549, DOI: [10.3109/0142159X.2016.1141190](https://doi.org/10.3109/0142159X.2016.1141190)

To link to this article: <http://dx.doi.org/10.3109/0142159X.2016.1141190>



Take-Home Message



Googleimages.com

<https://www.freeimages.com/search/mobile/8?free=1>

Mobile Devices for Distance Learning



Take-Home Message



<https://www.freeimages.com/search/classroom/3?free=1>



Take-Home Message

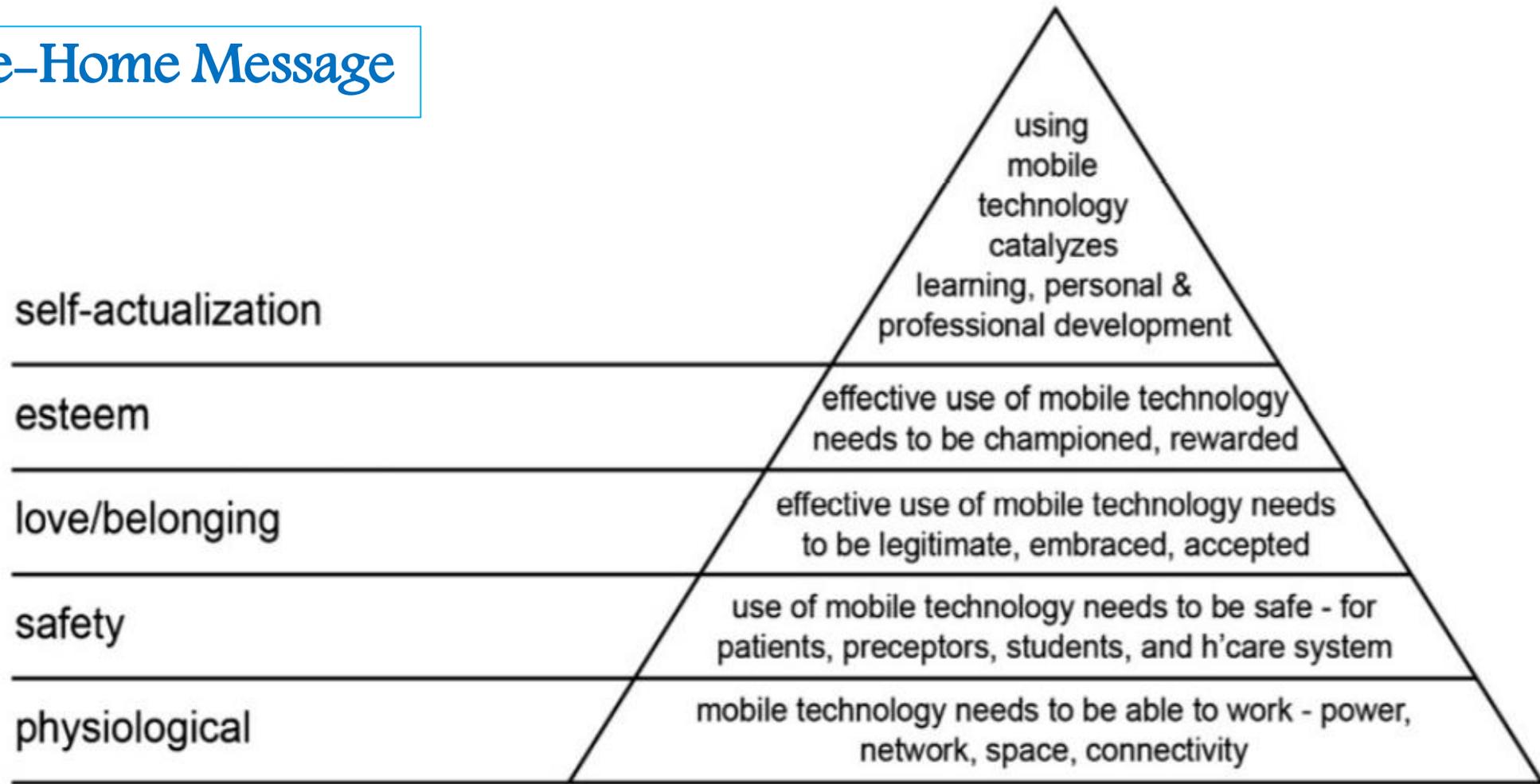


Figure 3. A hierarchy of needs for using mobile technologies in medical education – after Maslow (1943).



<https://www.freeimages.com/search/question-and-answer>

References and Further Readings

- Ken Masters, Rachel H. Ellaway, David Topps, Douglas Archibald & Rebecca, J. Hogue (2016) Mobile technologies in medical education: AMEE Guide No. 105, Medical Teacher, 38:6, 537-549, DOI: 10.3109/0142159X.2016.1141190
- NMC Horizon Report (2013) Higher Education Edition, The New Media Consortium. Retrieved from: www.nmc.org/pdf/2013-report-HE.pdf
- Rosser J.C. Jr, et al. (2007). The Impact of Video Games on Training Surgeons in the 21st Century, Arch Surg. 2007;142(2):181-186. doi:10.1001/archsurg.142.2.181
- Denk, M., Weber, M. and Belfin, R. (2007) 'Mobile learning – challenges and potentials', Int. J. Mobile Learning and Organisation, Vol. 1, No. 2, pp.122–139.
- Trentin G. & Repetto M. (Eds) (2013). Using Network and Mobile Technology to Bridge Formal and Informal Learning, Woodhead/Chandos Publishing Limited, Cambridge, UK, ISBN 978-1-84334-699-9.
- Googleimages.com
- <https://www.freeimages.com/photo/no-description-1301831>
- Yunyongying , P. (2014).Gamification: Implications for Curricular Design Journal of Graduate Medical Education, September
- www.agame.com/game
- www.surgerygameonline.com/operate-now-dental-implant-game.html
- Denk, M., Weber, M. and Belfin, R. (2007) 'Mobile learning – challenges and potentials', Int. J. Mobile Learning and Organisation, Vol. 1, No. 2, pp.122–139.
- Trentin G. & Repetto M. (Eds) (2013). Using Network and Mobile Technology to Bridge Formal and Informal Learning, Woodhead/Chandos Publishing Limited, Cambridge, UK, ISBN 978-1-84334-699-9.
- www. googleimages.com
- freeimages.com/photo/no-description-1301831

Further Readings

- S Asadzandi, S Bigdeli, S Sedghi, M Sanjari, The preferences of Iranian teens in online and video games: A qualitative study, *Dilemas Contemporáneos: Educación, Política y Valores* 7 (2), 2020
- Gamification in Radiology: A Systematic Review. Mohammad Kiani Feizabadi, Amir Mahdi Mafakherian, Ahmadreza Goudarzi, Shadi Asadzandi, Mahshad Ahmadi, Shoaleh Bigdeli, 2019
- Bigdeli, S., Kaufman, D. Gamification in Medical Education: Terms, Concepts and Definitions, *Medical Journal of Islamic Republic of Iran*, 2017.
- Bigdeli, S., Kaufman, D. Game for Health Professions Education: Advantages, Disadvantages and Engagement Factors, *Medical Journal of Islamic Republic of Iran*, 2017.
- Asgari, M. , Kaufman D. (2014). Chapter Three: Designing Educational Computer Games: What Can We Learn From Commercial Games? In Asgari, M. & Kaufman, D. (2008). *Motivation, learning, and game design*. Richard E. Ferdig (ed.), *Handbook of Research on Effective Electronic Gaming in Education*. Information Science Reference, New York. Volume III, Chapter LXVII, pp. 1166-1182
- Edwin de Fouw (2012). Ward Round, gamification in medical education
retrieved from www.a-cross.com/health/node/474
- Lee, J. J. & Hammer, J. (2011). Gamification in Education: What, How, Why Bother? *Academic Exchange Quarterly*, 15(2)3