



“ The  
pandemic  
is *not* a revolution  
in medical education  
– it is an  
opportunity to  
learn how we can *make*  
education better !



**PROFESSOR DAVID GORDON**

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## **Disruptive Transformation of the Learning Environment**

**AAHCI LAC-MENA Cross- Regional Roundtable - 2021**

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## Need to change

- Covid-19 caused disruptive effects in education - urgent and necessary need to transform
- Rethink and redesign the educational offerings
- Need for innovation and creation in teaching methods
- Rapid pedagogical shift from traditional to online, personal to virtual instruction, and seminars to webinars

# *Hyperclass*

- COVID-19 pandemic has launched a digital revolution in higher education - Digital tools appeared the solution

## **Students versus Faculty readiness**

- ✓ *Hyper space*: open and flexible spaces that can be rearranged to cater for team or individual
- ✓ *Hyper media*: classrooms in which technology constitutes an environment in its own right and does not merely play a supporting role
- ✓ *Hyper reality*: use of augmented, virtual, 3D or immersive reality with high teaching potential

# Transformation

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Rapid evolvement to digitalization in an extremely short time.

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Learning about the potential barriers while implementing

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Unprecedented challenges for students, who needed technical assistance

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Staff and university leaders, had to reinvent themselves in record time to keep campus operations running

## Changes in teaching methodology

- Design should build online learning environments ; emphasize cognitive, emotional, motivational, and social aspects of learning.
- Learning should be relevant ;
- Learning should be within a social context;
- Learning activities should include various active teaching and learning methods;
- Should be motivating
- Need for instructional support in virtual environments which is essential in self-regulation of learning

## Assessing the problem

### **Which aspects should be considered while designing an Online/virtual learning environment?**

- Flipped classes
- Synchronous versus asynchronous
- Small group discussion – option of breakout rooms/channels (e.g., Microsoft Teams, Zoom, and Google Meet)
- Need for use multimodal material to engage students
- How to give feedback to students
- Mode of communication –email/whatsapp
- Do students have the ability of self-monitoring their time and pacing?

## Students' aspects

- Students' major challenge was technical /cost problems
  - Ensure an equitable student experience
  - Difficulty in maintaining attention, boredom, loneliness, time management, and lack of self-organizing capabilities.
  - Limited interaction/socialization between and among students- decrease in social skills.
  - Unfavorable home environments for learning
  - Mental health issues emerged
  - **Some innovation and creation noted during course delivery**
  - **Some preferred online to face- to -face learning**
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## Faculty's aspects

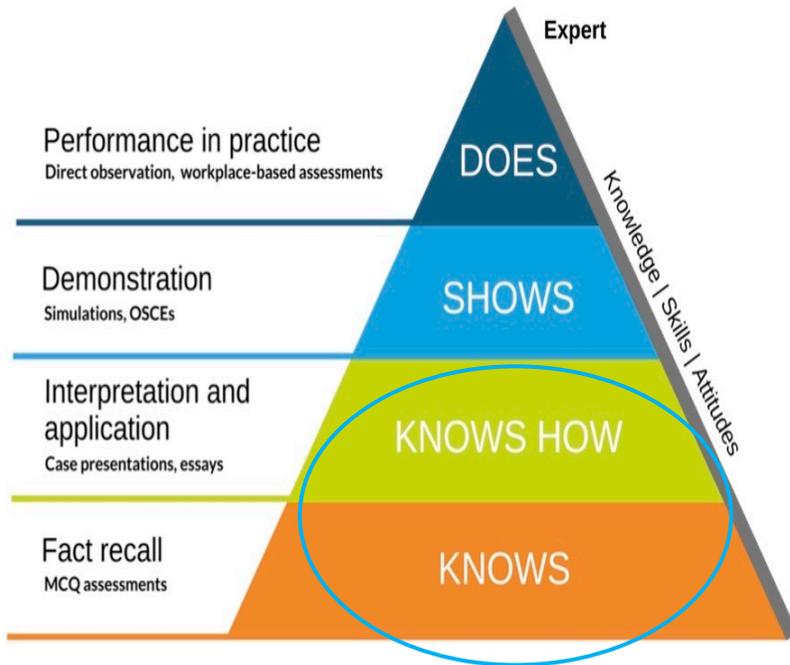
- Transformation was stressful
  - Sudden change without much instructional design support.
  - Not comfortable with the online setting
  - Emotional challenges – struggles with establishing boundaries between work and home
  - Main difficulties:
    - ✓ High demand for proficient computer knowledge
    - ✓ Proper handling of various teaching-learning tools
    - ✓ Need to solve specific problems during learning sessions
  - **Self-renewal of the service model /new experience**
  - **More empathy towards students**
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## University aspects

- Need short-term unbudgeted financial costs
- Need to improve on existing digital capacity
- Better faculty development programs and campus efforts to support online instruction
- Promote culture of digitalizing, need to work in teams (students, staff, professors) to implement changes and cultivate digitalization



## Major challenge



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Students' assessment should be re-aligned with the new content of teaching.

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Online learning objectives are low in Miller's pyramid; only possible to assess students at the level of “knowing” and “knowing how”

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Assessment: many modalities

BUT

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Challenge : fair assessment while assuring students will not cheat in an online environment

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Used online proctoring and psychometric programs



# CHALLENGE

- How to assess Practical skills ?
  - innovation & creation
  - Virtual ???
- Do we change from high-stakes assessment to ongoing multiple low-stakes assessments is an advance to the final assessment
- How students shall evaluate teachers
  - Shall we use a different rubric ?

# Mitigating Aspects

- More attention and focus on students and understanding of the student learning experience has sharpened.
- The already P /F system in preclinical year mitigated the abrupt transition
- Learning communities
- More vital student engagement in and out of class
- Wellness programs and student support services were activated
- Greater appreciation for the social, economic, and political contexts of students

## Lessons learned

- Delivery should be effective to reach high quality student engagement
- Institutionalize online education
- Capacity-building programs to improve quality of online teaching
- Need for policies and guidelines for online learning
- Vital role for collaboration between teams ( faculty, peers, administrators, IT, students)
- Hybrid learning to harness potential of the technological tools
- May need to changing from high-stakes assessment to multiple low-stakes ongoing assessments

## Global student



- Pandemic may forever change how future physicians are educated.
- Technology based innovation will reshape education.
- Hybrid learning is likely to stay after the pandemic.
- Universities need prepare for an interconnected world; change KPIs
- Greater cooperation between international institutions and regions to overcome barriers of geography and formal classroom hours.
- Enhance humanity
- Future is for the **GLOBAL STUDENT**

