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“INNOMATH - Innovative enriching education processes for Mathematically Gifted Students in Europe”

Project Number: 2019-1-DE03-KA201- 059604

Title of Content: **Module 9 : Evolution of Education 1.0 to 4.0 , Future Schools**

Presenter: Prof. Gregoris A. Makrides

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1921



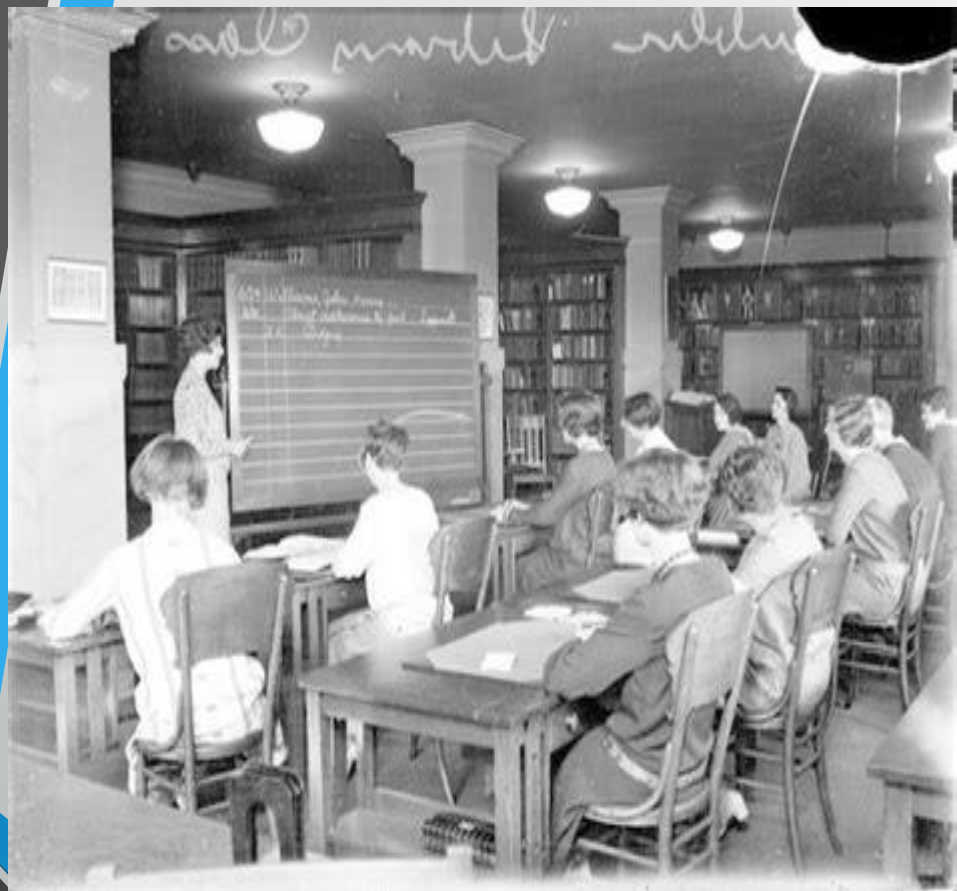
2021



1950 With air-condition



2021 with air-condition



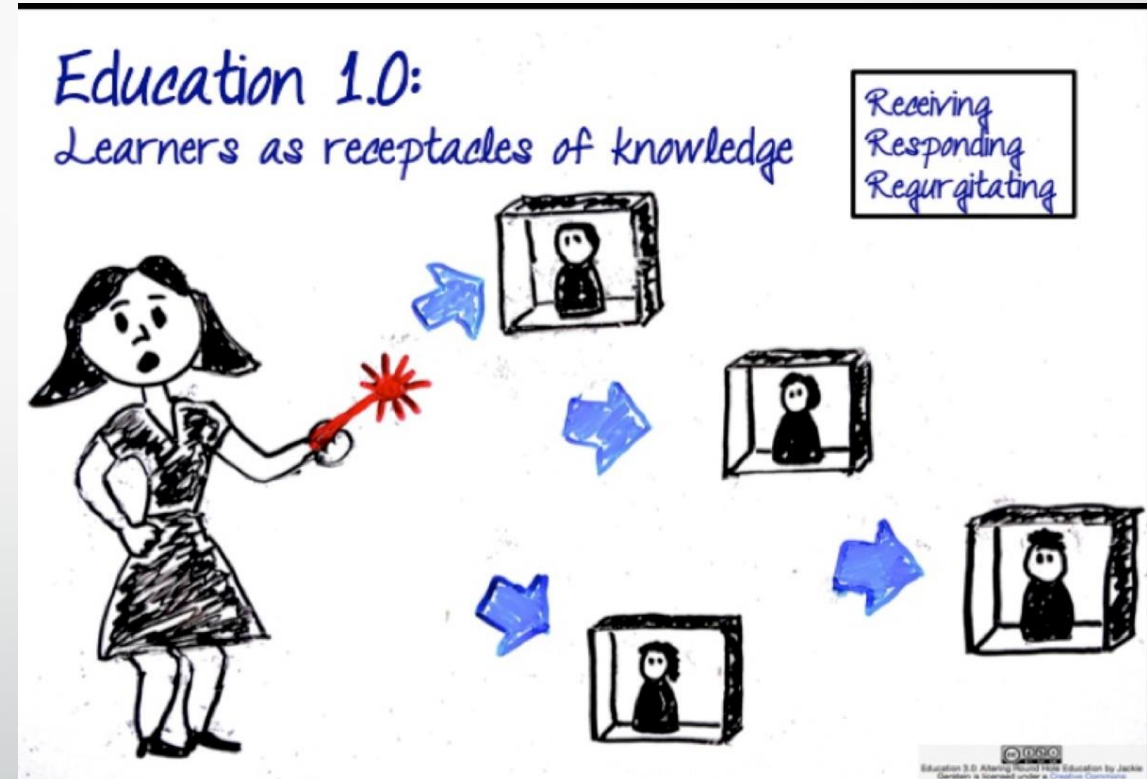
1960 portability



2020+ portability

EDUCATION 1.0

- Authoritarian
- The student is the passive recipient
- Teacher-centered system - the teacher gives knowledge as the absolute leader in the classroom
- Technology is forbidden in the classroom



EDUCATION 2.0

- Communication and collaboration are starting to grow
- Exam-based approach - the result is the examination - Memorization of knowledge
- An underestimated student-centered approach, we call it but do not apply it.
- the schools are still talking about hours of teaching But they should talk about hours of learning !!!

Education 2.0:

Learners as communicating, connecting, collaborating



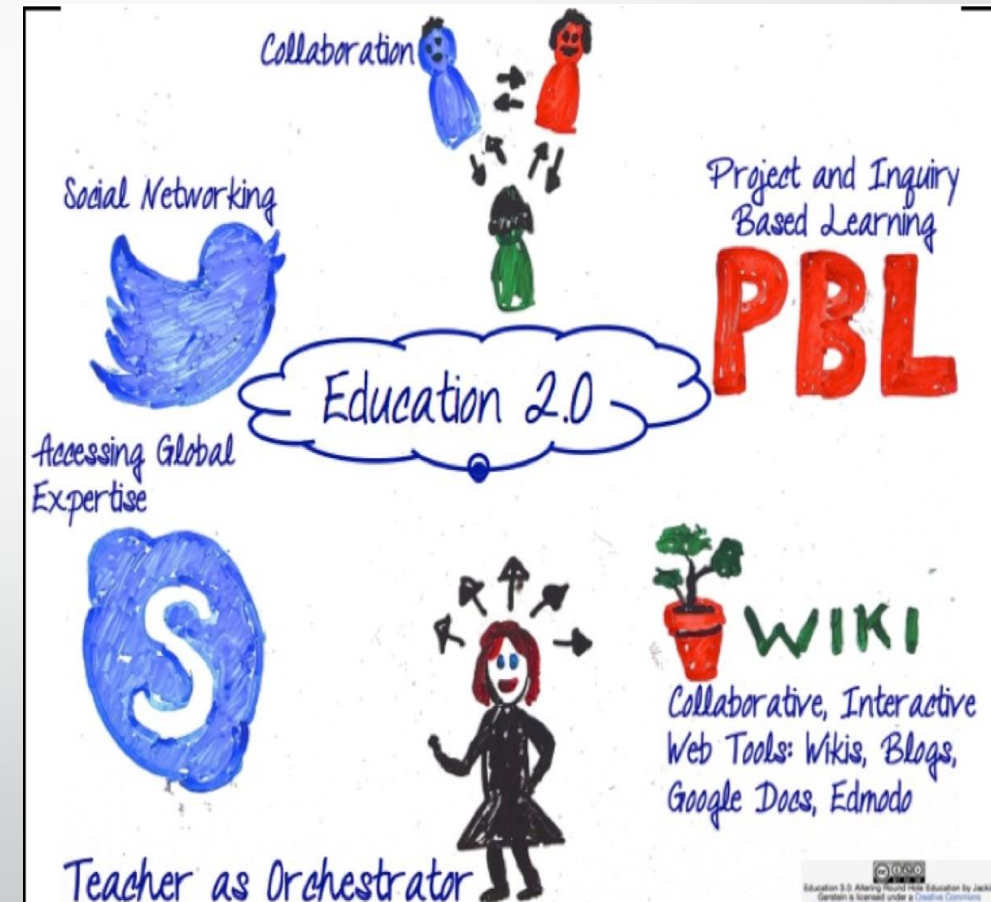


EDUCATION 2.0

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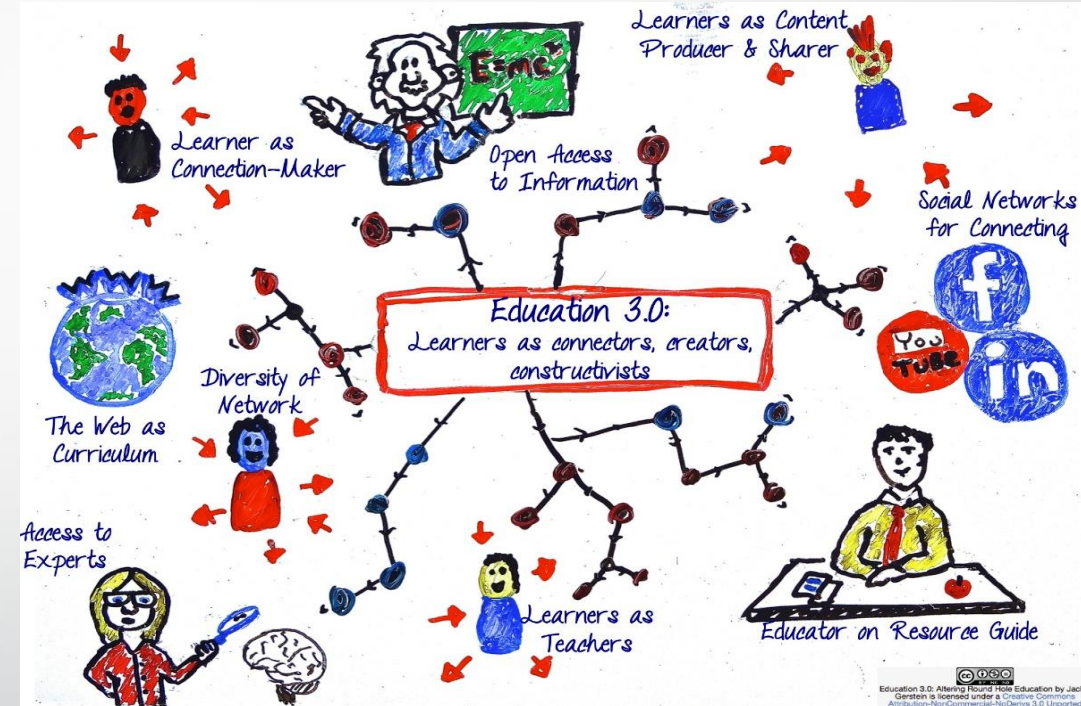
- Invasion of technology and social networking
- We apply technology to the classroom as a trend indicator, but the class continues to have the same structure.
- Complete confusion students know the technologies better than teachers
- No design for what is used and what is not
- Many choices, there is no money for buying and applying, uncoordinated technology correlation with the curriculum the system can not properly follow the evolution of technology ... there is no teacher training data is everywhere Google Search faster from traditional libraries ... the web knows more than our teacher **WE WERE NOT READY FOR COVID-19**
- Students give technical knowledge to their teachers



EDUCATION 3.0

- Student-Centered approach
- The teacher is transformed into a Coordinator/facilitator, advisor, learner and practice guide
- The student is researching
- Flip classroom method applies
- More dialogue, technology is everywhere, the student is self-learning and everywhere.
- The classical style classroom no longer exists
- Lesson Plans are now called...

Learning Plans







2030+

EDUCATION 4.0

- Co-creation and innovation in the centre
- Whenever and Wherever
 - Flipped classroom applied (Hybrid Learning Environments)
 - Interactive practical exercise – F2F or Distance
- Learning is done at home or outside school, while in school students develop skills
- Development of personalized teaching and learning
- Learning Plans are now called **Learning & Creativity Plans**
- The technology
 - Its free or/and easily accessible,
 - Increased use of virtual reality, artificial intelligence ,etc
 - Continuous evolution and innovation and therefore a need for development of Competences and Skills so people become Adaptable to Change

2.0
Lesson Plans

3.0
Learning Plans

4.0
Learning
&
Creativity Plans

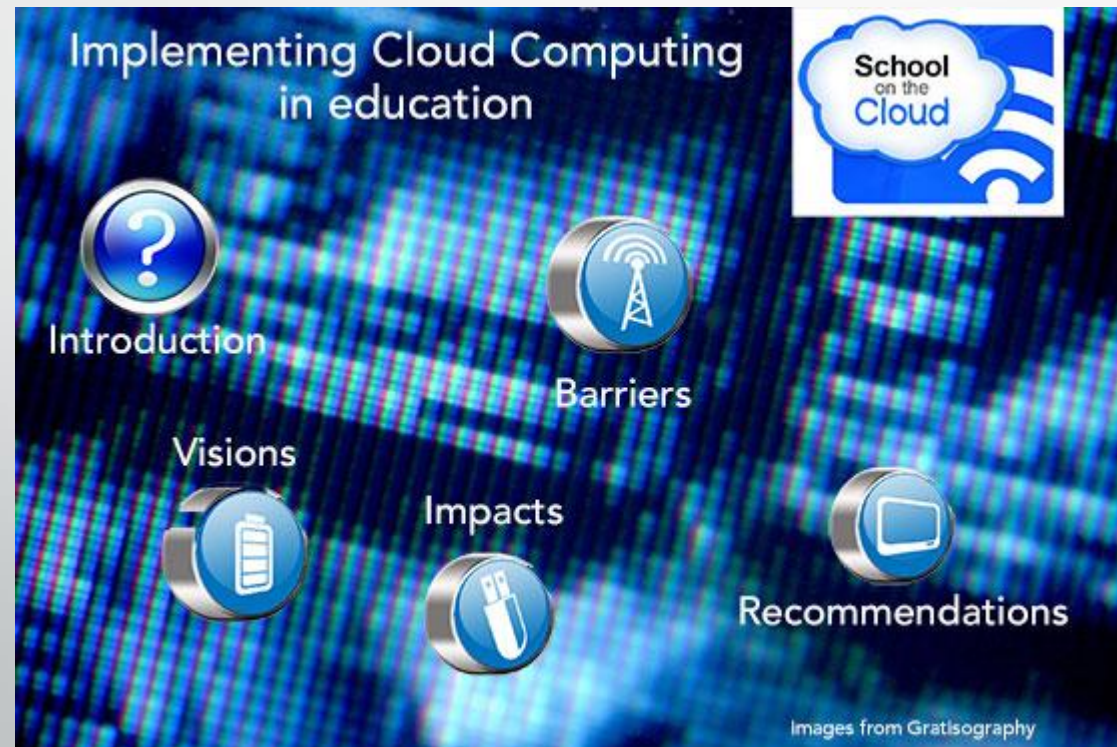
What is needed?

The EU Funded Project : School on the Cloud (2013-2016)

(<http://www.schoolonthecloud.net/>)

has demonstrated that leadership for change is needed.

The main issue today is no longer access to technology, but the capability to **establish meaningful leadership for Cloud-based learning, teaching and administration.**





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L-Cloud: Developing Tomorrow's Cloud Education Leaders (EU funded project 1 October 2018 – 31 October 2020)

Cloud is designed to promote the leadership for change and is aiming at:

1. *Guidelines for Skills and Competences for **Adaptive Cloud Education Leaders***
2. ***Qualification Framework for Education Cloud Leaders** based on Skills and Competence.
well as the definition of an International Professional Certification Programme.*
3. ***MOOC Webinar Training Course** for developing adaptive cloud education leaders with a
Certification Programme*



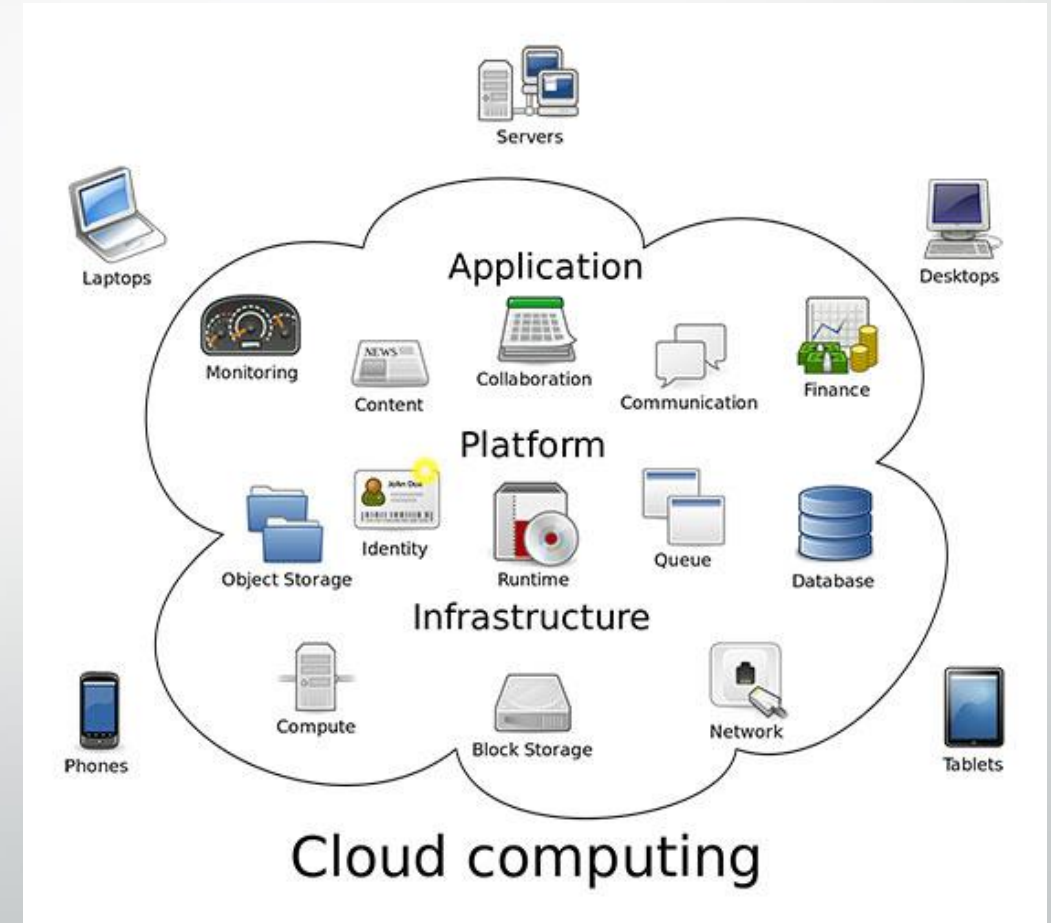
L-Cloud
Developing Tomorrow's
Cloud Education Leaders

www.L-Cloud.eu



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All tools are moved into the Cloud



Simple as that...

BYOD

Simple as that... *BYOD*

Bring your own device



How children use devices in developing countries?



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NEW RESULTS USEFUL FOR EDUCATION 3.0 & 4.0



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STEAME

November 2019 – October 2021



STEAME : Science-Technology-Engineering-Arts-Mathematics-
Entrepreneurship

What is needed?

Model of STEAME Schools

Guidelines for new organizational structures for such a school

Training of Teachers - help them to adapt

Change in Curricula, Tools, Methods



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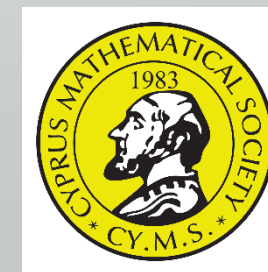


S.T.E.A.M.E. : Science-Technology-Engineering-Arts-Mathematics-Entrepreneurship
Project under ERASMUS+ SP (School Education)

www.steame.eu

STEAME: Guidelines for Developing and Implementing STEAME Schools

- O1. Guidelines for dynamic and adaptive STEAME curricula ([Published](#))
 - O2. Guidelines for STEAME Activities in Schools for two age groups ([L&C Plans published](#))
 - O3. Guidelines for STEAME School Organizational Structure ([under development](#))
 - STEAME OBSERVATORY ([Published](#))
- Journal of STEAME Creations for and by School Students ([Published](#))





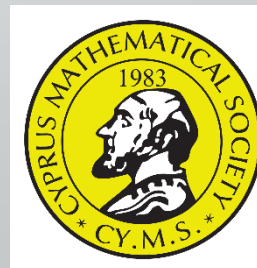
New developments...

STEAME GOES HYBRID

Approved and starting on 1 May 2021



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Is it an **evolution** or a revolution?

It is a **revolution**

**for teacher's competences, teaching and learning methods
and for school infrastructures**

and

an evolution

**for student learning as a necessary subsequence of technology development
and because they like it**



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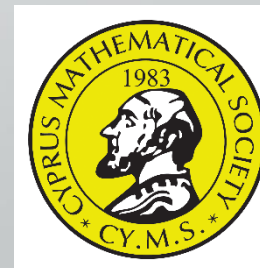
New Competition

European STEAME Communication Competition for adults

Info and on-line application

www.steame.eu

www.euromath.eu





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13th EUROMATH & EUROSCIENCE 2021

21-26 March 2021, Paphos, Cyprus

www.euromath.org , www.euroscience.info

The only international conference for pupils of age 9-18.

Students write abstracts and full papers for proceedings, they present at the conference as individual presenters or in groups.

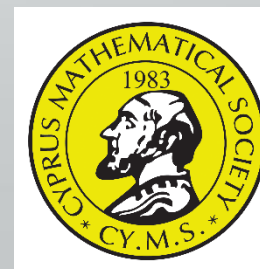
They also participate in competitions during the event developed through the

Le-MATH EU funded project outputs in implementation

- MATHFactor
- MATHeatre
- SCIENCE-Factor
- SCIENCE-Theatre
- MATH-Poster Design Competition
- SCIENCE-Poster Design Competition
- MATH-Presentation Competition
- SCIENCE-Presentation Competition
- European Mathematics Journalistic Article Competition

60 sec video

[video](#)





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Thank you for your attention

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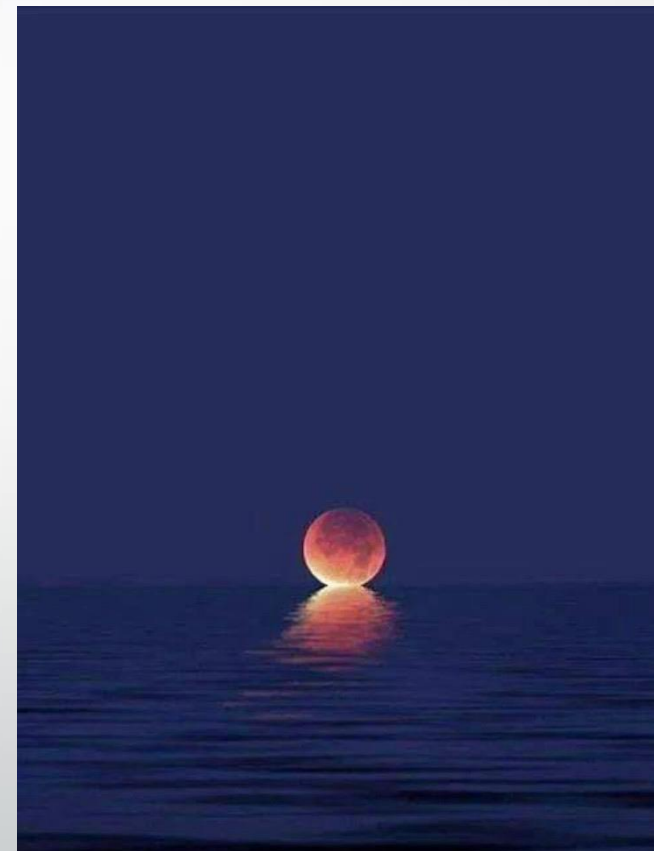
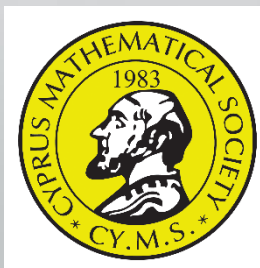
www.thalescopyprus.com

www.euromath.org

www.euroscience.info

www.cms.org.cy

www.steame.eu, www.L-Cloud.eu





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Text...



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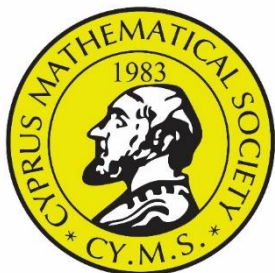
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INNOMATH Partners



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