



TETRIS VS. PUZZLE GAME

The challenging face of
ICT education in 5G Era

Emmanouil Serrelis

Lecturer @ Metropolitan College

Technology Evolution

From 1G to 5G

- Better Quality
- Faster data exchange
- More data
- More applications
- More support services
- More interaction between consumers
- Better control for providers and consumers
- Safer



Yet Another Industry 4.0 Enabler...

The 5G Ecosystem

- People & Things
- New interface support
 - Tactile
 - Augmented
 - Interconnected devices
 - etc.
- New applications
 - Driving
 - Manufacturing
 - Health
 - Utility & Energy
 - etc.
- ***Autonomous operations***



Special Areas of Attention

5G concerns

- Balancing energy efficiency
- Security in services and information
- Optimizing production methods
- Minimizing radiation levels
- ***Developing 5G ready businesses***



Education at the era of Industry 4.0

Focus on

- Applications for consumers
- Capacities for business
 - Cloud-based and security skills
 - Machine learning algorithms for Big Data
 - GPS development and IoT-focused design
 - Electrical engineering on the small scale
- Environmental impact for everyone
- ***Mix of skills for individuals***
- ...and much less on technology



Complimentary Educational Requirements

Continuous Learning on

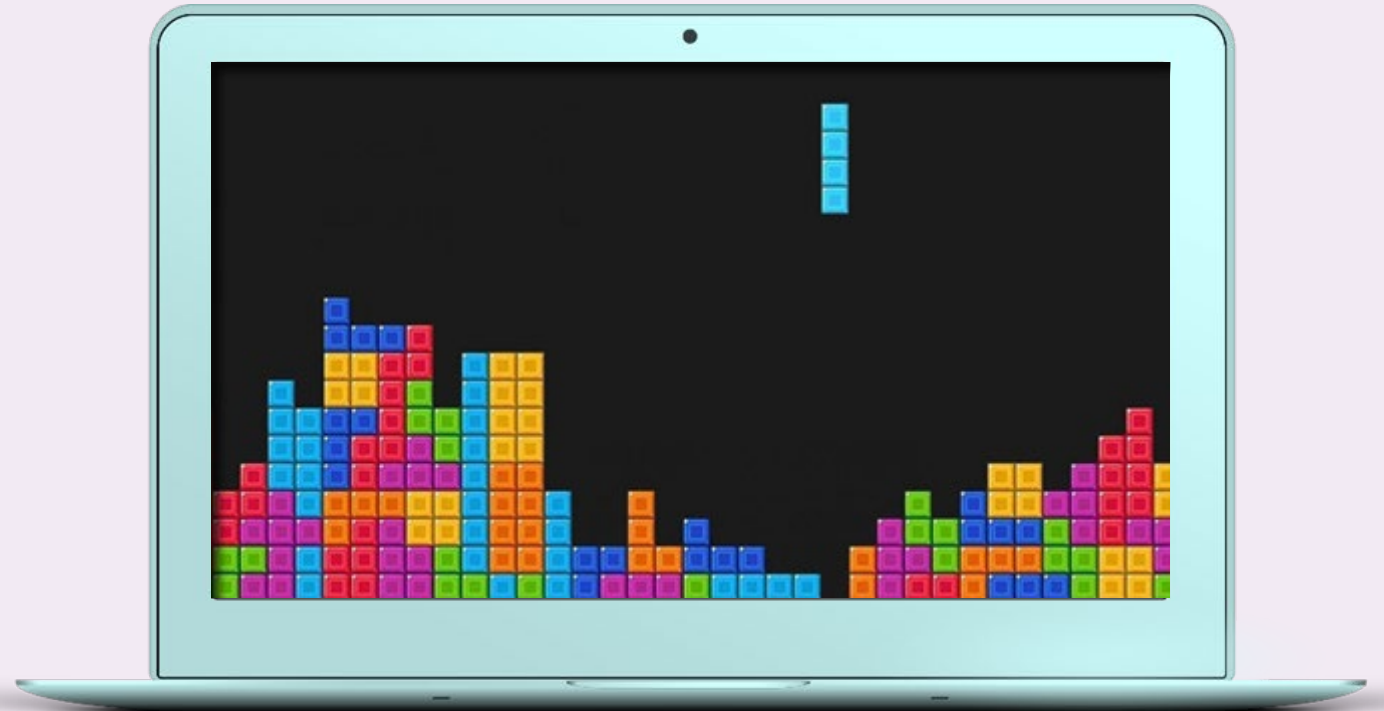
- Technical (Cloud, Big Data, IoT etc.)
- Technology specific (ITU IMT-2020 etc.)
- Application Development
- Operational (DevOps, Manufacturing etc.)
- Project Management (Business Analysis, Workflow, Agile etc.)
- Marketing (Demand Analysis, New product development etc.)
- Security (Risk Management, Device specific etc.)
- Legal (Regulations, Legislation etc.)
- Environmental issues (Energy, Pollution management etc.)



Growing and Evolving Need

Education in the 5G era

- *Obtaining new knowledge*
- *Adding new skills*
- *Integrating and interacting with **different disciplines***
- *Process never stops!*



So the education game is...

... unlike a Puzzle (with a finite end) ...

... but it is more like a Tetris game!



THANK YOU

Emmanouil Serrelis

eserrelis@mitropolitiko.edu.gr

Lecturer @ Metropolitan College