Teaching tools and techniques for students of Generation Z

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Introduction

Our current students of bachelor level - **Generation Z** (Strauss, Howe, 1991) (other names - "iGeneration", "Homeland/Indoor generation", "Zoomers", "New Silent Generation") had a digital childhood and **better perceives information with a help of smartphones, social networks, online tools, gamification and artificial intelligence algorithms** (Forbes, 2019).

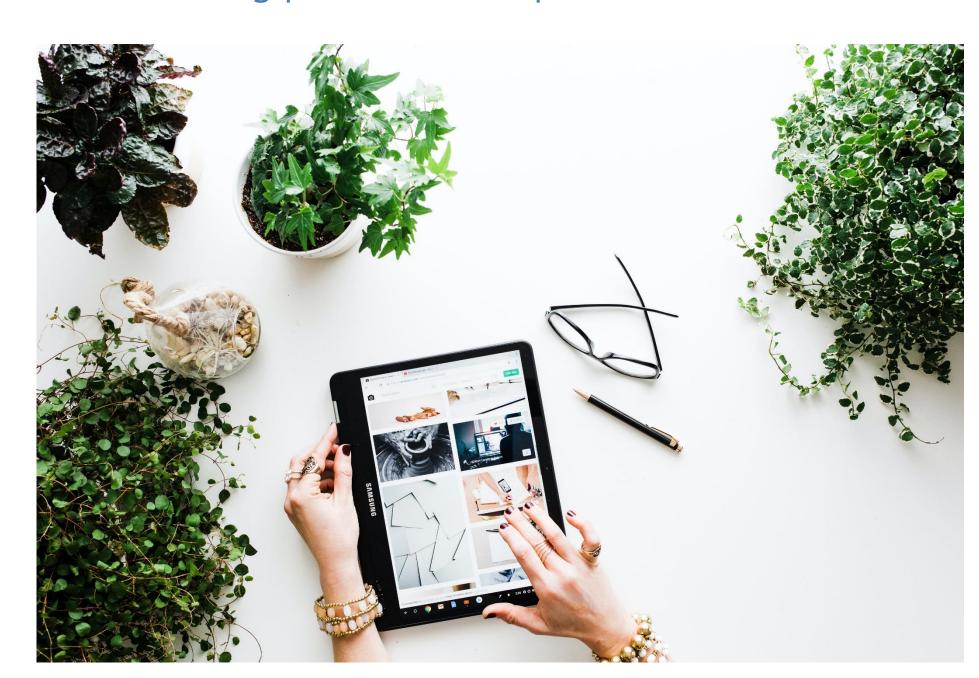


COVID showed that this generation is quite responsive to some online teaching tools and techniques, and after COVID most probably will request it more even during the in-class sessions.

This poster is about the technological needs of generation Z and online and blended learning and teaching.

Portrait of students and values of students of Generation Z:

- "Work **3-4 hours** a day". However, they can work for the idea they like for 14-16 hours a day (on a project-basis, rather than long-term work).
- They want to be listened to and respected.
- Cannot be shouted at and ordered what they are "supposed" to do.
- **Environment** friendliness.
- Money and status are not anymore **values** for this generation as much as for the previous generations.
- Meditative condition, a lot of introverts.
- Invent and use new and interesting **online products**, e.g. online sharing platforms (Wikipedia, Uber, airbnb, etc.).



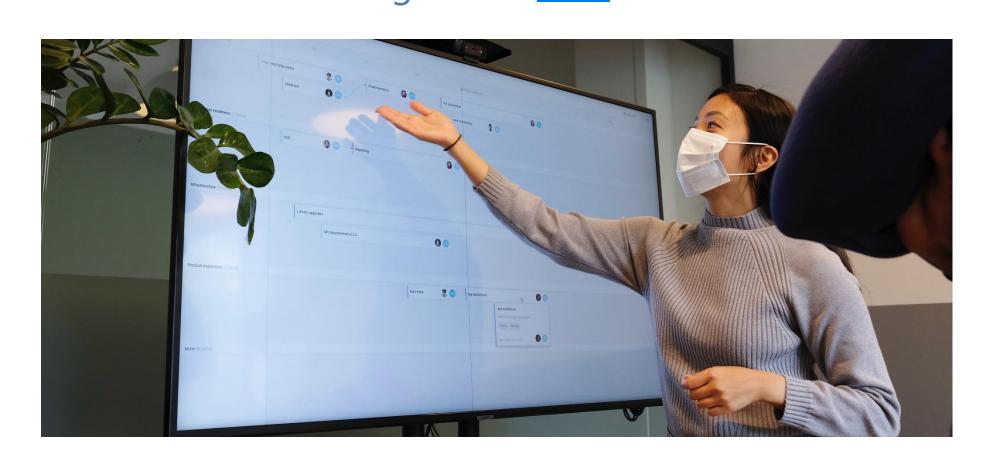
Generation Z students are characterized by:

- Technologies;
- Environmental friendliness and care for the environment and the future of the planet;
- Practicality, independence, answer to the question: "How can I apply it in practice?";
- "Less is more", more visual, audio and video;
- Generation of gamers.



Generation Z is responsive to the following teaching methods:

- Pre-recorded video lectures (15-20 min/each most).
- Written material prior to the lectures with application to **real-life situations**.
- In-class discussion (**two-way**). A lot of appraisal of students. "Student is the God" (not the teacher).
- Home work, where they can check what they have understood and can apply in practice.
- Fast **feedback** and personal approach (consultations to address their questions, sometimes quite primitive).
- Peer-to-Peer learning. Video here.



Caution: online lecturing is not the same as in-class lecturing!

- Larger involvement of students and less in-class lecture-type format.
- Teachers are not anymore "above" by status, both sides should be equal in order for teaching to be effective and beneficial.



Useful online tools for everyday online & hybrid classes:

- Online class platforms: Zoom, Webex, etc. (options "raise hand", "chat", "break-out groups", "whiteboard", etc.) starting point.
- **Voting tools**: Mentimeter, Poll Everywhere, Zoom, votes in social networks (FB, Istagram), etc..
- Gamification elements: random.org, etc.
- Cloud solutions: OneDrive, Google Drive, Dropbox, etc.
- Interactive presentations & lessons: Canva, Prezi, Nearpod.
- Online Mind Mapping and Collabotion Tools: Mindmeister, Miro.
- Virtual Reality Tools: Google Expeditions & Google Cardboard (5-20 USD).



Future trends in education:

According to HolonIQ report "Education in 2030. Five Scenarios for the Future of Learning and Talent" (https://www.holoniq.com/2030):

- **Education-as-Usual**. Traditional education institutions remain the trusted source of learning and the most effective vehicle for jobs and prosperity. Higher Education consolidates, global talent platforms emerge and government remains the core source of funding around the world.
- **Regional rising**. Regional alliances dominate the competitive education landscape, supported by strategic and political cooperation. Cooperative blended delivery and regional talent hubs cross-load labor supply and demand to strengthen.
- **Global giants**. This global free market environment has fostered the emergence of "mega-organizations" with ubiquitous brand recognition and the scale to achieve creativity and IP of teachers.
- **Peer-to-Peer**. Learning online through rich, personalized human to human experiences dominates the post-secondary and skills training sectors. Blockchain technology fundamentally reconfigures credentialing and unlocks the collective creativity and IP of teachers.
- Robo Revolution. Al drives a complete reversal in "who leads learning", with virtual; tutors and mentors structuring learning paths, providing assessment tasks, giving feedback, adjusting according to progress and organizing human tutoring when needed.

Example: Ecole42 in France



Technology-based learning.

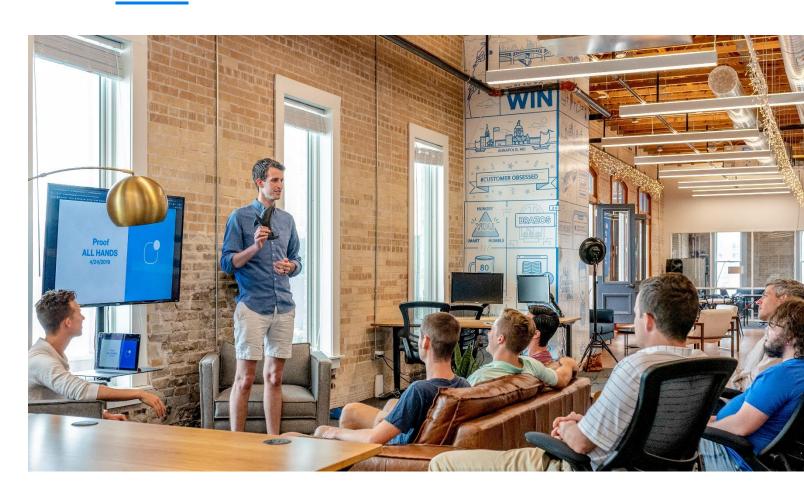
Free, private-school, can enter without baccalaureate, no teachers, no lessons, no lecture theatres, no marks. Students are given a project, and they do it on their own.

Example how the role of the teacher changes in the digital times.

Video here.

Recommendations

- Even if there is a Google and "sea" of modern, user-friendly educational technologies, students need a **Teacher**.
- Don't rely too much on technology.
- Technology should enable learning.
- Technology-enabled vs. Technology-enhanced teaching.
 Video here.



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