

Chronis Kynigos

Professor

at the Department of Educational Studies
Domain of Expertise

«Digital Technologies in Education - Mathematics Education»

(Formal Employment: 120/14-2-2008)

- Director of the [Educational Technology Lab](#) (ETL)
- Coordinator of the NKUA Centre of Excellence: '[Digital Transformation through the Social Sciences and Humanities](#)'
- Evaluator at the [European Collaboration for Science and Technology](#), 2017-2020
- Scientific Board Chair at the [2nd Experimental Gymnasium of Athens](#)
- Member of the Scientific Committees of the [Wide-scale in-service teacher Education](#) and the [Digital School Infrastructure](#) of the Ministry of Education, CTI-Diophantus
- Editorial Board member of four international journals [1](#), [2](#), [3](#), [4](#)
- Pedagogical design of three authoring systems, [MaLT2](#), [ChoiCo](#), [Photodendro Mathematics](#)

Contact Information

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Education:

- B.Sc. in Mathematics (1977 - 1983): National and Kapodistrian University of Athens, Dept. of Mathematics
- Diploma in Education (1984): Institute of Education University College London, Dept. of Mathematics, Statistics and Computing και Dept. of Psychology
- Master of Science in Mathematical, Statistical and Computing Education (1985): Institute of Education University College London: Dept. of Mathematics, Statistics and Computing. Dissertation: "Doing Geometry with Logo"
- Doctor of Philosophy in Mathematics Education (12.1.89): Institute of Education University of London, Dept. of Mathematics, Statistics and Computing. Thesis: "From Intrinsic to non - Intrinsic Geometry: A Study of Children's Understandings in Logo - Based Microworlds"

Main scientific/research areas of interest:

- The design of innovative interventions in educational practices aiming to make use of digital technologies for the emergence of added pedagogical value
- The study of aspects of educational practice emerging from the embedding of the use of digital media in formal and informal educational institutions in order to transform learning to become deeper and at the same time more flexible by making it more relevant and engaging for learners
- Learner meaning-making in conceptual fields (such as curvature, co-variation and rate of change, spatial orientation, angle and turn, periodicity, proportionality) during constructionist and discursive activity
- The study of emergence and cultivation of creativity in mathematical thinking in focused problem situations and in wicked problem contexts where mathematics simply plays a role in action competence and perspective taking
- The scope, techniques and processes of integrating diverse theoretical frames to guide the pedagogical design of digital media and to study educational practices and learning based on their use
- The study of the process of teacher empowerment during professional development and post-graduate studies with emphasis on the engagement in communities of practice and communities of interest
- Creativity in the context of collaborative designs of digital media for transformational learning situations

Current teaching activity:

(a) Undergraduate:

- [692 - Mathematics Education with the use of Digital Technologies](#), Dept. of Mathematics
- [TEK-12 / ΠΑ171 Digital Technologies in Education](#) Dept. of Educational Studies
- [Pedagogy](#), Dept of Biology
- [74TEK22 New Literacies in the Digital Era](#), Dept. of Educational Studies
- [74TEK223 Digital Technologies, New Literacies and Teacher Professional Development](#), Dept. of Educational Studies

- [74TEK21 Digital Games as a new Literacy](#), Dept. of Educational Studies

(β) Postgraduate:

- [DiTrEP 21st Century Education and Digital Technologies](#) Digital Transformation and Educational Practice (Dept. of Educational Studies, NKUA, Dept. of Informatics, UniWA, S.Pe.Te.E)
- [DiTrEP Learning Processes and Educational Design with Digital Technologies](#) Digital Transformation and Educational Practice (Dept. of Educational Studies, NKUA, Dept. of Informatics, UniWA, S.Pe.Te.E)
- [DiTrEP Mathematics Education with Digital Technologies](#) Digital Transformation and Educational Practice (Dept. of Educational Studies, NKUA, Dept. of Informatics, UniWA, S.Pe.Te.E)
- [A2 Mathematics Education II](#) Mathematics Education and Methodology (NKUA; Depts of Mathematics, Educational Studies and History and Philosophy of Science, University of Cyprus)
- [A9 Uses of Digital Technology in Mathematics Education](#) Mathematics Education and Methodology (NKUA; Depts of Mathematics, Educational Studies and History and Philosophy of Science, University of Cyprus)

Current and recent research projects:

- ✚ **2020–2022:** [GAMMA](#)' Game-Based learning in Mathematics, (2020-2022) Erasmus+ Programme, KA2 - Cooperation for innovation and the exchange of good practices, KA201 - Strategic Partnerships for school education, Project No: 2020-1-HR01-KA201-077794, P.I., Partner Organization, NKUA
- ✚ **2020–2022:** [STEAMTeach](#)' STEAM Education for Teaching Professionalism, (2020-2023) Erasmus+ Programme, KA2 - Cooperation for innovation and the exchange of good practices, KA201 - Strategic Partnerships for school education, KA201-96C773E0, P.I., Partner Organization, NKUA
- ✚ **2019–2022:** [“The T-CREPE project](#): Development of an innovative web based platform to support co-creation based learning and coaching in remote teaching environments with a focus on entrepreneurship”. KA2 Erasmus+ (Project No: 612641), P.I., Partner Organization, NKUA
- ✚ **2019–2022:** [“Cos4Cloud – Co-designed Citizen Observatories Services for the EOS-Cloud”](#). Horizon 2020 (Project No: 863463), Researcher, Partner Organization, NKUA
- ✚ **2019–2022:** CoThinE': Computational Thinking and Education, University of Linnaeus, (2018-2020) Project n. 15461, Project P.I., NKUA and Linnaeus University
- ✚ **2019–2022:** DoCENT': Digital Creativity ENhanced in Teacher Education, (2017-2019) Framework of Digital Creative Teaching Competences, Erasmus+, Strategic Partnerships for higher education, 1-IT02-KA203-036807, P.I., Partner Organization, NKUA
- ✚ **2019–2022:** ER4STEM': Educational Robotics for STEM, (2015-2018), H2020-SEAC-2014-1, Research Executive Agency (REA), Spreading Excellence, Widening Participation, Science with and for Society (Project n. 665972), P.I., Partner Organization, NKUA. <http://er4stem.acin.tuwien.ac.at/>
- ✚ **2013–2016:** [“Mathematical Creativity Squared'](#) - A Computational Environment to Stimulate and Enhance Creative Designs for Mathematical Creativity”. EU-FP6, P7-ICT-2013.8.1, Technological Development and Demonstration, Strategic Objective "Technologies and scientific foundations in the field of creativity" (Project No.: 610467), Project P.I., NKUA and CTI-Diophantus

Selected recent Publications:

1. Kynigos, C., Diamantidis, D. (2021, σπ. δημ.) Creativity in Engineering Mathematical Models Through Programming, *Mathematical Creativity – State-of-the-art of Empirical Research*, Roza Leikin Bharath Srirama (Eds) [The International Journal of Mathematics Education](#), ZDM, Springer Verlag
2. Kynigos, C. (2020) Half - baked Constructionism: The Challenge of Infusing Constructionism in Education in Greece *Designing Constructionist Futures: The Art, Theory, and Practice of Learning Designs* Nathan Holbert, Matthew Berland, and Yasmin Kafai (Eds), 61-72, [MIT Press](#), Cambridge Massachusetts
3. Kynigos, C., Essonnier, N., Trgalova Y. (2020) Social creativity in the education sector: The case of collaborative design of resources in mathematics, [Creativity Research Journal](#), Volume 32, 2020 - Issue 1: Creativity, learning and technology, Vlad P. Glaveanu, Ingunn Johanne Ness & Constance de Saint Laurent (Eds), Routledge, 17-29
4. Kynigos, C., Grizioti, M (2020) Modifying games with ChoiCo: integrated affordances and engineered bugs for Computational Thinking, [British Journal of Educational Technology](#), 51 (6), 2252-2267, Wiley, UK, <https://doi.org/10.1111/bjet.12898>
5. Kynigos, C., Grizioti, M. (2018) Programming Approaches to Computational Thinking: Integrating Turtle Geometry, Dynamic Manipulation and 3D Space, [Informatics in Education](#), 17.2, 321-340 Vilnius University
6. Kynigos, C., Yiannoutsou, N. (2018) Children Challenging the Design of Half-baked Games: Expressing Values through the process of Game Modding, [International Journal of Child-Computer Interaction](#), Volume 17, September 2018, Elsevier, Pubs., 16-27

7. Kynigos, C. (2015) Constructionism: Theory of Learning or Theory of Design? In *Selected Regular Lectures from the 12th International Congress on Mathematical Education* 417- 438, Sung Je Cho (Ed), DOI 10.1007/978-3-319-17187-6, © [Springer International Publishing](#) Cham Heidelberg New York Dordrecht London, Switzerland 2015
8. Kynigos, C. (2015), Designing Constructionist E-Books: New Mediations for Creative Mathematical Thinking?, [Constructivist Foundations](#) 10(3): 305–313
9. Lagrange J.B., Kynigos, C. (2014). Digital technologies to teach and learn mathematics: Context and re-contextualization, Special Issue in Digital representations in mathematics education: conceptualizing the role of context and networking theories, [Educational Studies in Mathematics](#), Lagrange, J.B. and Kynigos, C. (Eds), Springer Science + Business Media, Dordrecht, 85 (3), 381-403
10. Morgan, C., Kynigos, C. (2014) Digital artefacts as representations: forging connections between a constructionist and a social semiotic perspective. Special Issue in Digital representations in mathematics education: conceptualizing the role of context and networking theories, [Educational Studies in Mathematics](#), Lagrange, J. B. and Kynigos, C. (Eds), Springer Science + Business Media, Dordrecht, 85 (3), 357-379

Detailed CV

Webpages

Google scholar

https://scholar.google.co.uk/citations?hl=en&user=XMNOqIIAAAAJ&view_op=list_works&sortby=pubdate

Linkedin

<https://www.linkedin.com/in/chronis-kynigos-15a47a9/>

Academia

https://uoa.academia.edu/ChronisKynigos?from_navbar=true

Researchgate

<https://www.researchgate.net/profile/Chronis-Kynigos>

You tube

<https://www.youtube.com/channel/UCt-uswKQ1fnWT2PKBIvM9zg>