Preface

“tà πάντα ρεῖ καὶ οὐδὲν μένει” ¹ Heraclitus

INNOVATION IN EDUCATION KNOWS NO BORDERS, NO TIME, AND NO LIMITS

Back in the Fall of 2001 at Oakbrook Terrace, the home office of DeVry University (Illinois, USA), a junior university professor full of creative ideas, drive, and desire to make a difference in higher education, and a seasoned academic leader who had experienced education both from the vantage point of the professor, and the administrator were exploring avenues for collaboration, while at the same time exchanging views on the various issues that surrounded online learning as the latter was gaining momentum in the US higher education.

Maria was determined to place Visual Literacy/VL (Avgerinou & Ericson, 1997) at the center of educators’ attention, the reason for which Stefanos did not quite (care to) grasp until course VL was put forward as one of the essential literacies of this century (Avgerinou, 2007, 2009; Avgerinou & Pettersson, 2011; Partnership for 21st Century Skills, 2003)! For more than a decade, she designed and taught both online and blended courses, and shared her areas of expertise—which now were extended to also include action research, and online learning—with K-12 educators, university professors and researchers. In addition, as an international scholar and the editor of the Journal of Visual Literacy (JVL) she was able to reach out and have an impact on more educators and scholars around the world.

On the other hand, Stefanos as a seasoned educator serving for more than two decades a variety of Higher Education institutions in the US and Greece, had always held the belief that creation of new knowledge is not only the result of research and creativity in higher education institutions. He refused to accept that educators in Elementary and Secondary institutions were not capable to create new knowledge, develop new paradigms, establish and implement cutting edge methodologies. He thus joined in 2005 the American Community Schools (ACS) of Athens with the view to putting his ideas to practice.

And so, who could have imagined that fifteen years later, we would meet again to collaborate in a different continent, yet not within a higher education context, but this time at a premier K-12 international school? Who could have predicted that in response to the global quest for educational reform, we would join forces with the mission to synthesize, present, and share the components of a new educational paradigm that aspires to revolutionize K-12 blended learning, as manifested in particular through the reflective accounts of those student advocates who paid attention to the signs of the learning zeitgeist, and thus strove to pioneer iFlex (blended) teaching in the trenches? Who could have envisaged that online and, more recently, blended learning would have taken not just universities, but also the K-12 by storm,

¹ "τὰ πάντα ρεῖ καὶ οὐδὲν μένει" (from Greek: "everything flows and nothing remains") is a famous quote by the ancient Greek philosopher Heraclitus (c. 535–475 BCE)
so drastically, and in such an incredibly short amount of time? And, finally, who could have foreseen that blazing new trails in the K-12 online and blended education, designed to meet as effectively as possible the yet uncharted territory of the 21st Century and its strong demands for innovation and creativity, would entail more than a careful integration of technology? In fact, it would necessitate a new educational framework with specifically delineated parameters, along with a new type of educational leadership.

Connecting the above pieces together, thus creating the thread that runs between the larger educational arena and ACS Athens and communicates new knowledge to both ends, the book presents and discusses extensively the theoretical framework of the i²Flex classroom model as a new pathway for K-12 blended learning, and also advances the sufficient and necessary conditions that must be in place for the successful implementation of the model both at the school, and the classroom level. To illustrate the latter, the book includes the reflective narratives on the i²Flex teaching and learning journeys of those ACS Athens faculty who found their online and blended voices (Spector, 2007) through the reflective practicum (Laurillard, 2002) of our school-wide action research endeavor.

THE GLOBAL MORFOSIS PARADIGM (gMp)

The purpose of education is to successfully prepare students for the future, and therefore we cannot continue educating them in ways that address education and market needs of the past. The world has changed exponentially in ways that are not always easy to understand, so as to accurately predict and prepare students for the future. Thus, a new trajectory of education is urgently needed. The Global Morfosis Paradigm (gMp), organically developed by the ACS Athens community of learners, addresses this need through being, an authentic, unbounded, and exciting educational paradigm educating students for complex and ambiguous future needs. Implementing the gMp provides students with the inspiration to develop the wisdom to transform their educational experience into social, economic, environmental, intellectual and ethical resources to improve their lives, but most importantly the lives of less privileged students across the globe.

With roots and inspiration in Ancient Greece where the organized human development begun, the paradigm is called the global Morfosis paradigm (gMp). The global characteristic is a reflection of Socrates’ statement (as cited in Plutarch’s Of Banishment), “I am a citizen, not of Athens or Greece, but of the world”. The gMp is a dynamic three-dimensional paradigm consisting of three inseparable, interconnected, and interrelated components: 1) the Morfosis, Educational philosophy from the Greek word Μόρφωση (ethical, intellectual and social shaping of the human character); 2) the i²Flex (i square Flex), a blended Instructional Methodology; and, 3) the Aristeia Leadership Trajectory, from the Greek word Αριστεία (pursuing excellence under the guidance of ethos). Whereas these components will be extensively discussed in Chapters 8, 9, and 10 respectively, a visual summary of the gMp within the context of ACS Athens teaching and learning in the 21st Century, is provided in Figure 1.

This dynamic paradigm reflects established global values, principles, and beliefs. In addition, it avoids cultural bias, and promotes kindness and ethos. For the past eleven years, the gMp has being constantly challenged, reviewed, and improved. Hopefully it has now become a meaningful and significant proposition. A proposition which, when adopted and implemented according to the realities of each K-12 academic institution, will make a difference to all constituents of the institution. At ACS Athens,
we have seen the results of adhering to this paradigm on our students, faculty, administration, and staff. We see that our students are indeed well-equipped to become tomorrow’s leaders with ethos, to make the world a better place to live in for all people, but in particular for the less fortunate.

In summary, academic institutions, now more than ever, have to make a shift in their perception of what education means, and offer educational opportunities and experiences which are determined by their philosophy and culture, defined through their history, principles, values, policies, management style, and most importantly the thinking and behavior of their constituents (Gialamas & Pelonis, 2009). The gMp provides such a framework, as well as the necessary conditions for students, faculty, administrators, and staff to become architects of their own learning in order to change first themselves, and finally the world. We need a more kind and fair world for the benefit of all of us. We believe that the gMp provides the foundation to develop a world with such essential qualities.
AMERICAN COMMUNITY SCHOOLS (ACS) ATHENS: PROFILE

The American Community Schools (ACS) of Athens has a long history of educating young people having been established in 1945 as the British Army School. Later it was incorporated in Delaware (USA) as a private, non-profit educational institution for the children of American diplomatic and military personnel. ACS Athens evolved to become an international school embracing the American Educational philosophy principles and values. Currently it admits and serves not only students from the American communities in Greece but also students from more than 60 international expatriate communities and native Greek students. The school offers the American Diploma, and is accredited by the Middle States Association of Colleges and Schools (MSA) (Pennsylvania, USA). In addition, it is authorized by the International Baccalaureate Organization to offer the International Baccalaureate Diploma, and by the College Board (USA) to offer the American Advanced Placement International Diploma.

During the past seven years, the first and second choice of college/university acceptance rate for ACS Athens graduates has hovered between 94 to 96% in college acceptances, with admissions to institutions of higher education primarily in the US, Canada, and the UK, as well as in European and local American universities and colleges. This record of successful college placement is one of the major factors in the steady growth in enrollment that the school has experienced during the past ten years (current student enrollment: 826 students; 41% cumulative increase). In particular, the increase of student enrollment during the recent period of the Greek financial crisis, reflects the high quality of educational experience ACS Athens provides to its students.

Sustaining Excellence and Action Research: The Reaccreditation Process

The MSA first accredited ACS Athens in 1964. The school has maintained its accreditation successfully since then. Its last accreditation (2007) was effective until 2014. In 2013, ACS Athens was selected to complete the requirements of the newest and highest level of MSA’s accreditation protocol the so-called Sustaining Excellence. This protocol applies to schools that can demonstrate 1) their efficacy, over time, in producing the levels of student performance that are desired and expected by their community of stakeholders and 2) are recognized as leading schools (i.e. achieve high levels of student performance, have an excellent understanding of the necessary antecedents for those results, and are likely to continue achieving those high results over time).

The Sustaining Excellence protocol includes two phases:

1. **The Consultation and Application Phase**: the school submits an application to use Sustaining Excellence and provides information and data to demonstrate that it meets the requirements to use this protocol.
2. **The Action Research Phase**: the school develops a more comprehensive description of its proposed Action Research Initiative and submits it to MSA. Concurrent with conducting the Action Research Phase of the Sustaining Excellence Protocol, the school conducts a self-assessment to determine the degree to which it meets the MSA Standards for Accreditation.

The ACS Athens Action Research Initiative begun in September 2014 with the entire faculty and administration being involved in some aspect of it. The research framework was as follows:
GIVEN:

1. The characteristics of our current study body;
2. The characteristics of our current faculty (qualifications, diversity, longevity, etc.);
3. The educational experience of our students (curriculum, teaching and learning methodologies, support services, advisory program, etc.)

THEN: How can we ensure that 95% of our graduates gain access to a best fit institution of higher education, as we remain true to the American educational principles that shape our work?

Various groups were created with specific foci (i²Flex, math, reading and writing, ESL/EFL, best fit, optimal learning, professional development), and were given the opportunity to meet throughout the school year in order for the action researchers to be able to share and receive feedback on their ideas, concerns, and findings within their respective research community. The results of this school-wide action research initiative were shared with researchers, educators and academic leaders from around the world during the ACS Athens’ Sustaining Excellence Research Colloquium (April 2016).

ORGANIZATION OF THE BOOK

The book is organized in three (3) sections, and twenty-five (25) chapters. The first section is dedicated to the larger K-12 blended education landscape, its demands, issues and trends. The second section discusses the three components of the gMp at length, with particular reference to the i²Flex methodology. The last section is written by ACS Athens educators who have piloted i²Flex in various teaching and learning contexts, either as an educational innovation, an action research exploration as part of the reaccreditation process of the school, or both.

A brief description of each of the chapters follows below:

Chapter 1 first discusses the current array of failings in the education systems of both developed, and developing countries, and continues with an analysis of the concept of the iron triangle. Within that context, i²Flex as an educational innovation, suggested goals of education, and an agenda as to how these might be attained, are presented.

Chapter 2 summarizes the way the Community of Inquiry (CoI) (Garrison et al., 2000) framework is conceptualized as developing from the interaction of three presences, and reviews research on the effects of each presence on teaching and learning. A course redesign project is presented as ideally suited to the ongoing development of i²Flex classes. The chapter concludes with an examination of two other frameworks for structuring blended learning that might be applicable to i²Flex classes.

Chapter 3 takes the perspective of the teacher as the leader of a blended K-12 classroom, working to create a Community of Inquiry (CoI). It discusses the inherent tension between the teacher/class leader encouraging social presence, while simultaneously maximizing cognitive presence and higher order thinking for students. The use of social media is offered as a potential solution that enhances class-level social presence, and contributes to higher levels of learning for all.

Chapter 4 begins with the recognition that the new technologies have shifted our perception of how best to support and facilitate learning in primary and secondary education. Among the many possibilities of leveraging these technologies is the concept of flipping the classroom so that primary presentations of content take place outside the classroom, with classroom activities focused on practice, interaction and
feedback. To make a flipped classroom successful requires training teachers. The focus of this chapter is on the needs and requirements involved in making flipped classrooms successful learning experiences for students.

Chapter 5 addresses the challenges personnel preparation programs meet when preparing pre-service special educators for service in today’s technology rich classrooms. The author used an action research methodology to explore the feasibility of developing a virtual Professional Learning Community (PLC) for the purpose of building a collaborative culture of learning in special education and providing pre-service and novice special educators access to networks of support. The implications of the research are discussed with respect to how personnel preparation programs prepare teachers for service in in 21st Century classrooms.

Chapter 6 is focused on teachers in their role as information designers in print, and digital environments. With the 21st Century classroom in mind, guidelines and recommendations based on information, and multimedia research design assist the teacher-designer to confidently blend content, modalities, and media, and design information and instruction sets that are well suited for the intended receivers thus optimizing their potential for learning.

Chapter 7 begins with drawing a distinction between blended and online learning settings, discusses a variety of types of learner assessment, describes contemporary trends, challenges, and recommendations for the effective assessment of learning in blended and online courses, and offers several recommendations for future research. The authors conclude with a discussion of implementation topics associated with assessment in these learning environments that deserve additional attention and consideration.

Chapter 8 discusses a new educational philosophy (Morfosis) that has been adopted by ACS Athens as part of the global Morfosis paradigm (gMp) over the past decade. Morfosis is defined within the 21st Century framework, as a holistic, meaningful, and harmonious educational experience, guided by ethos. The chapter also advances the concept of successful vs. significant institutions, and shares recommendations on how establish a culture that promotes and establishes the latter.

Chapter 9 presents the second component of the gMp, that is, the Aristeia leadership defined as a continuous act of effectively engaging all members of an organization, or community, as well as utilizing their differences, their authentic energies, creative ideas, and diverse qualities primarily for the benefit of their constituencies. The Aristeia Leadership approach is defined by its three essential components (a) the establishment of an Authentic Leadership Identity (ALI), (b) the creation of a Collective Leadership-Partnership Approach (CPA) and (c) serving humanity (Gialamas, Pelonis, & Medeiros, 2014).

Chapter 10 provides a brief overview of blended learning in the K-12, and then presents the background, definition, and praxis of the i2Flex methodology, followed by the conditions that are critical to its success. Specific reference is made to perspectives, instruments and processes of that have served as its pillars and guides, such as, Boyer’s scholarship of teaching (1990), the Community of Inquiry (CoI) Framework (Garrison, et al., 2000), TPACK (Mishra & Koehler, 2006), and the Quality Matters® rubric (Quality Matters, 2016).

Chapter 11 presents the basic concept, the components, and the implementation of the Dogs in Learning (DiL) program, as a true reflection of the gMp and its three components. A detail description of the concept of the Spiral Curriculum as applied to DiL is offered. Preliminary results, recommendations, and best practices are also shared.

Chapter 12 identifies and discusses the fundamentals of the i2Flex teaching methodology from the perspective of the elementary (ES) and middle school (MS) principals. The ES Principal presents how
she set the groundwork for students and faculty to embrace this new paradigm, while the MS Principal discusses the two-year implementation process of the i2Flex methodology of instruction.

Chapter 13 describes setting the stage for i2Flex with reference to implementation in the elementary school. The fifth grade teacher and the technology specialist discuss how they employed their constructivist philosophy to collaboratively set up an i2Flex introductory program for elementary school students. The chapter discusses specific examples of their practice supporting young learners with the foundational skills that they will need in order to use the i2Flex program successfully in the middle and high schools. It argues that such practice may inspire students to develop independent learning skills and social learning competencies.

Chapter 14 discusses the i2Flex instructional methodology as implemented in Middle School Classes for young EFL and Foreign Language learners. Students are described as active participants of the process. The teacher changes hats from being the instructor in the limited sense of the direct instructor in a teacher centered classroom environment, to being an effective facilitator of the process of education, eventually. The lesson plans change, the media through which they will be delivered also change to be adding to, or even omitting at times, the traditional textbook.

Chapter 15 provides a brief narrative account of the author’s action research experience, focusing on an entrepreneur simulation in the ACS Academy (High School), and a series of gamified interventions done with ACS middle school students within a blended learning environment. It closes with a brief gamification toolset, a series of practical considerations drawn from this field experience and relevant research that may be helpful for teachers and administrators interested in exploring ways to gamify their own digital and physical learning communities or spaces.

Chapter 16 reviews the implementation of the i2Flex methodology in a math classroom. A middle school math teacher and the math Studio coordinator designed a specific unit of work in mathematics in order to convert it to i2Flex delivery. The classroom atmosphere is described in detail, and a range of considerations about the methodology is discussed. Finally, the Community of Inquiry (CoI) framework is presented as an evaluation tool of the methodology for the success of the methodology.

Chapter 17 discusses the i2Flex philosophy, and how the flipped classroom complements this methodology as it allows students to build on higher order thinking skills within a K-12 international school setting. The author argues that the i2Flex model allows curriculum demands to be met while creating a learning environment whereby Middle School Science students are motivated and become engaged in higher order skill-building activities.

Chapter 18 presents the co-teaching of an interdisciplinary English and social studies class in 9th grade. In order to differentiate instruction and engage all students, the i2Flex methodology was implemented. The process of the implementation and its tools are first described, followed by the presentation of the impact, and the implications of this exciting learning journey for both teachers and students.

Chapter 19 traces the philosophy and rationale behind one application of the i2Flex blended learning methodology in the context of an International Baccalaureate (IB) History class. The author shares his goals and processes for assisting students to improve their analytical writing in one of the most challenging IB courses through a process he calls, Reverse Engineering of exemplars. Throughout the chapter the author reflects on how the methodology has shifted students’ thinking and processing; additionally, he shares the challenges that he has faced in implementing the process.

Chapter 20 describes ways that students in the ACS Athens i2Flex Fitness class (High School) explore physical activity by using the power of new and emerging technologies, and mobile learning, while at the same time eliminating concerns about giving up activity time for some kind of online alternative.
Chapter 21 describes the implementation of the i2Flex in her IB French class in two consecutive academic years in an attempt to meet more effectively the educational needs of the new generation students. The instructional (re-)design of her moodle® (2016) shell, and her efforts to evaluate this pilot year via an appropriate framework (Col) are presented in detail. The goal is to share under the umbrella of best practices how meaningful and efficient the i2Flex is, taking in consideration the new role of the teacher in and out of class and its unique potential for student learning.

Chapter 22 begins with the assumption that science is traditionally considered one of the most complex and demanding subjects in school, yet can be one of the most inspiring experiences one has encountered in their academic life. The author presents the process and the results of the i2Flex model implementation in a High School Science IB class as online/virtual laboratory investigations, in an effort to enhance high cognitive skills and academic performance of students.

Chapter 23 presents two case studies which explain the transformation of the Honors Humanities course from Face-to-Face to i2Flex. The authors describe and present examples of how they redesigned their courses. They present data on student feedback and findings regarding the benefits and challenges of adopting the i2Flex methodology for this program. The chapter is intended as a reference for in-service, and pre-service teachers, as well as for teacher educators.

Chapter 24 addresses the Holistic, Meaningful and Harmonious process (Gialamas & Pelonis, 2009) of applying to college through the digital world and caters to such audience as guidance counselors, principals, teachers and parents interested in making the college application process a meaningful journey through which students will obtain skills and tools to use when life calls for them. The implementation of the i2Flex model methodology to college guidance is discussed within this context.

Chapter 25 argues that due to the rapid changes taking place in today’s society, individuals need more than ever to be equipped with tools that will assist them to cope with the changes they are faced with within multitude domains of their lives: school, work and social environments. The author examines the i2Flex instructional model, and based on student and teacher data, she goes on to illustrate how learning within this framework, assists students in being flexible, adaptive and skilled 21st Century learners.

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REFERENCES


**ENDNOTE**

1 there is nothing permanent except change