

# The Future of Motion Design as a 21st Century Skill in Irish Classrooms

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*Abstract: As Ireland strives for the position of “Silicon Valley of Europe” it is becoming ever more important for institutes of higher education to provide teaching and learning in the key skills that students and graduates will need to compete in a rapidly changing technological environment. Motion design represents one of the most exciting and underused digital design skills in Irish classrooms that could enhance learning through innovative visual communication. We outline the background to Ireland’s move towards 21st century learning and how, through initiatives like Bridge21, the TA21 project and a Postgraduate Certificate in 21st Century Teaching and Learning, Trinity College is at the forefront of driving educational and social change in Irish schools. We present initial results from our research into teacher attitudes and their willingness to facilitate students digital creativity in the classroom in order to provide an assessment of the readiness of Irish classrooms to embrace 21st century skills like motion design. 21st century learning in Irish classrooms could lead to motion design becoming a cross-disciplinary medium facilitating creativity in art, storytelling and technology to help develop key skills among the upcoming technology literate generation.*

**Keywords:** Education, Motion Design, Irish Classrooms, 21st Century Skills, Teaching & Learning

## 21st Century Learning

There is an increasing amount of emphasis being placed on students learning key skills in the classroom with governments keen to prepare young people to live and work in a rapidly changing society (Quinn 123). These key skills, or “21st Century Skills” as they have come to be known, are the skills that learners need to develop in order to fulfill their potential during their time in school. They include, but are not limited to; information processing, critical and creative thinking, working with others, communicating and being personally effective (NCCA, 2009). In Ireland, educational reform has long been touted as the solution to addressing the need for key skills and making education more relevant to the challenges of 21st century living as well as empowering students to think critically, communicate effectively and work collaboratively (Johnston 1).

## Motion Design as a 21st Century Skill

Research with teachers and learners has shown that skills like communication, problem-solving, and accessing and selecting information will contribute to literacy and numeracy development, improve the learning experience and are relevant to all subjects. Crucially, working with digital technology also forms part of each of these 21st century skills (NCCA, 2012). Krasner describes the field of motion graphics as a discipline that has captured the imagination of designers and viewers alike in the 21st century as it has evolved to incorporate a range of communication technologies including film, animation, interactive media, and environmental design. He goes on to explain how designing in time and space leads to a unique set of creative challenges that combines graphic design with the dynamic visual language of cinema into a hybridised system of communication. Finally he concludes that the merging of composition and choreography, when applied to image and motion, can communicate visual messages with meaning, expression and clarity (Motion Graphic Design: Applied History and Aesthetics, xiii). From this interpretation it is easy to see how motion design has the potential to become ubiquitous in the classroom as a mode of incorporating communication, information processing, creative thinking



and digital literacy in all school subjects as well as being a 21st century skill itself. However, significant barriers remain in integrating 21st century learning into the classroom.

## The Bridge21 Model

Currently the Irish education system places much importance on the acquisition of content knowledge and not enough on the development of the key skills that are required to succeed in a 21st century knowledge society. Bridge21 is a model of 21st century learning that is currently being trialled in a number of post-primary schools as part of a systemic reform process in Irish education (Conneely et al, 2015). The core components of the Bridge21 learning model are:

- “Technology as an integral tool in the learning process.
- Delivery of content through student-led cross-curricular, thematic projects.
- A physical learning space designed and configured to support team-based learning.
- A pedagogical approach which focuses on key skill acquisition and content knowledge.
- A focus on the social context of learning to increase student motivation and engagement
- Adult support that seeks to guide and mentor, with teachers orchestrating and scaffolding team activities.
- Incorporation of team and individual reflection as a regular part of the learning.”

Figure 1 shows how the 21st century skills identified by the National Council for Curriculum and Assessment can be brought into Irish classrooms using the Bridge21 learning model.

Figure 1 (Left): Some of the key skills identified by the National Council for Curriculum and Assessment (NCCA) as being essential in a 21st century society. Source: NCCA. “Key Skills Framework Document” (2009). Figure 1 (Left): The Bridge21 Learning Model which equips students with 21st century skills in Irish classrooms. Source: Conneely et al. “Case Study Report for the NCCA.” (2012).



## The TA21 Project

In 2014 Trinity College launched the TA21 project which aims to affect a significant long term change in science and technology education through a range of interventions focused on the second level system. The TA21 project will help bring the Bridge21 learning model into schools through an innovative new postgraduate certificate course in ‘21st Century Teaching and Learning’. This course will give teachers the skills and confidence to embrace technology in the classroom and will be crucial in providing the platform needed if motion design is to be integrated into the education system. More than 80 teachers from 16 schools are participating in this year-long, part-time study course aimed at supporting cultural and pedagogical change within schools and building teacher capacity to leverage technology in creating an active, engaged classroom (See Figure 2).



Figure 2: Teachers participating in the postgraduate certificate course in ‘21st Century Teaching and Learning’ undertake modules in a range of 21st century skills taught through the Bridge21 learning model. Source: TA21 Project, Trinity College Dublin (2015)

## Initial Teacher Attitudes

All of the teachers taking part in the course are also part of a research project that will track the changes in their teaching and attitudes and compare them with a control group of teachers from similar schools that will not participate in the project. The research aim is to build an evidence base for national implementation of similar projects. Over the three year lifetime of the project, it will measure teacher’s confidence with technology, college going culture, teaching philosophy, and 21st century teaching practices. In this way the project will demonstrate the readiness of the current

education system in Ireland for 21st century skills like motion design to be brought into classrooms and gauge how much educational reform might be needed. The methods of data collection include qualitative interviews throughout the lifetime of the project as well as quantitative surveys twice yearly. The initial surveys at the start of the project provide an insight into the current culture towards 21st century skills in Irish classrooms. This initial survey of 126 teachers includes teachers that are taking the postgraduate certificate in 21st century teaching and learning as well as a control group that will not be taking part in any modules or activities. In order for the Bridge21 learning model to take root in the Irish education system it will require teachers to be open to embracing new technology and innovative teaching methods in the classroom. Figure 3 shows that teachers are mostly 'confident' or 'very confident' about letting students convey their ideas using media other than paper. This is encouraging for the prospects of motion design in the classroom although Figure 3 also shows that teachers that engage in this practice weekly or daily represent a minority.

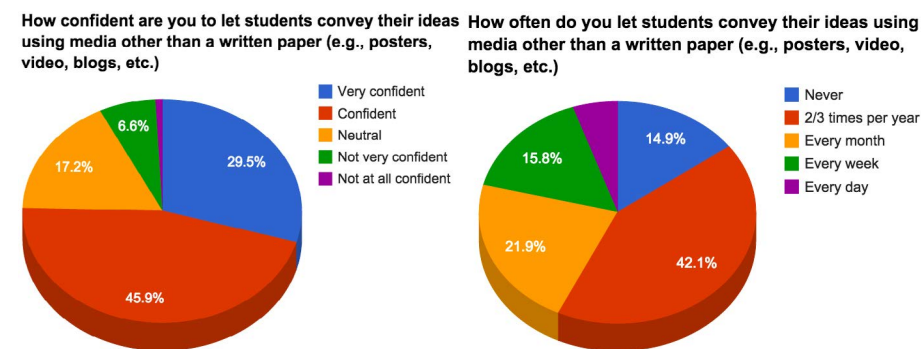


Figure 3: Teacher responses to the initial survey of the TA21 project. The sample consists of 126 participating teachers, of which 64 are in the control group. Source: TA21 Project, Trinity College Dublin (2015).

When it comes to letting the students create original products or performances to express their work, Figure 4 illustrates that although almost half of the teachers surveyed were confident about this practice, the vast majority did not engage in it more than a few times per year. This is where the TA21 project can make a real difference. By empowering teachers through the Bridge21 learning model

to feel confident about new technology and new teaching techniques in the classroom, a 21st century skill like motion design can be introduced to school students as a mode of expressing their ideas and nurturing their creativity.

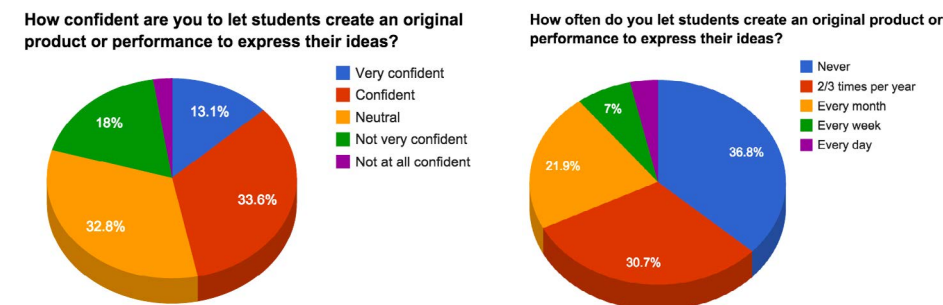


Figure 4: Teacher responses to the initial survey of the TA21 project. The sample consists of 126 participating teachers, of which 64 are in the control group. Source: TA21 Project, Trinity College Dublin (2015).

## Motion Design in Irish Classrooms

It is clear from our initial assessment of teacher attitudes among participants in the TA21 project that Irish teachers are confident about letting their students convey their ideas using media other than paper and to express those ideas using original products or performances. However in both cases the number of teachers that regularly engage in such activities represent a small minority. This is the benchmark for assessing the current environment for motion design in Irish classrooms. In order for motion design to be incorporated into curricula, teachers must be willing to embrace its potential as a presentation and communication medium for their students. It is clear that Ireland hopes to position itself at the forefront of the movement to bring 21st century skills into the classroom. The TA21 project has provided a means of bringing the Bridge21 learning model to an even wider audience and shows how technology, education and design collaborations can lead to exciting breakthroughs in teaching and learning. In order for motion design to find itself on secondary school curricula then it will take designers and educators working together to demonstrate to policy-makers how motion design represents a cross-disciplinary

medium that can bring art, storytelling and design to a technology-literate generation, empowering them with the skills needed to live and work in a rapidly changing society. Motion design is already a principal part of our contemporary visual landscape with integrative technologies merging television, the Internet and immersive environments (Krasner, xiii) but it now has the potential to also emerge as a key 21st century skill in classrooms, if we are ready to embrace it.

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