I. Aims & Objectives
- Online education on interactive television (TV)
- Combine entertainment & education content (edutainment)
- Domains of Science, Technology, Engineering, Mathematics (STEM), history, archaeology & general knowledge
- Deployment on desktop, mobile (smartphone, tablet) & TV devices

II. Background & Related Work
- Online education is growing, with more learners exploiting the benefits VLEs bring to structured learning, e.g. Udacity (Stanford) [4], wX (MIT/Harvard) [6], TED [14], Khan Academy [10].
- By 2015, 50% of companies will embrace gamification and more than 70% of global 2000 companies will have at least one application deploying gamification [16].

- Game-based Learning (GBL) / Virtual Learning Environments (VLEs), e.g. PlayPhysics [12], AmbiLearn (TreasureLearn) [8].
- Media Asset Management (MAM) concerns the ingestion, annotation, cataloguing, storage, retrieval & distribution of digital photographs, animations, videos & music [9].
- e.g. ResourceSpace (Open Source) [5], Telescope Enterprise (Commercial) [15].

- The Cloud concerns hosting & distributing edutainment content [2].

- “…if computers of the kind I have advocated become the computers of the future, then computing may someday be organized as a public utility just as the telephone system is a public utility... The computer utility could become the basis of a new and important industry.”
- Project Kurin: secure, high-capacity dedicated broadband link (10 G. LanPhy) direct to Canada, USA, Europe & rest of Ireland with delay of only 2 ms.

- “If computers of the kind I have advocated become the computers of the future, then computing may someday be organized as a public utility just as the telephone system is a public utility... The computer utility could become the basis of a new and important industry.”
- Project Kurin: secure, high-capacity dedicated broadband link (10 G. LanPhy) direct to Canada, USA, Europe & rest of Ireland with delay of only 2 ms.

- Project Kurin: secure, high-capacity dedicated broadband link (10 G. LanPhy) direct to Canada, USA, Europe & rest of Ireland with delay of only 2 ms.

- Project Kurin: secure, high-capacity dedicated broadband link (10 G. LanPhy) direct to Canada, USA, Europe & rest of Ireland with delay of only 2 ms.

- Project Kurin: secure, high-capacity dedicated broadband link (10 G. LanPhy) direct to Canada, USA, Europe & rest of Ireland with delay of only 2 ms.

- “If computers of the kind I have advocated become the computers of the future, then computing may someday be organized as a public utility just as the telephone system is a public utility... The computer utility could become the basis of a new and important industry.”
- Project Kurin: secure, high-capacity dedicated broadband link (10 G. LanPhy) direct to Canada, USA, Europe & rest of Ireland with delay of only 2 ms.

III. Architecture of 360-PlayLearn

V. Implementation of 360-PlayLearn

VI. Conclusion & Future Work
- 360-PlayLearn underpinned by 360-MAM & 360-Cloud
- Constructivist problem-based / project-centred learning
- Ubiquitous platform of interactive TV
- Widening access & education for all
- Conduct requirements analysis
- Implement 360-PlayLearn platform
- Evaluation of 360-PlayLearn with STEM & general knowledge content

VII. Acknowledgements
- This research is funded by a Northern Ireland Department of Employment & Learning (DEL) Co-operative Awards in Science & Technology (CAST) Ph.D. Studentship Award at The University of Ulster in collaboration with 360 Production Ltd., Derry/London
- We wish to acknowledge Ted Leah, Information Assurance Manager at the University for pointing out the online learning benefits of Udacity, wX and the Khan Academy

VIII. References