Hopscotch Coding - Week 5 - 6 - Extended Project & 'GameCon'

Overview

Over the next two weeks the class will be designing their own game, culminating in a little game expo at the end of the second week. The class will be expected to experiment will all the forms of game design encountered, incl. methods of control (accelerometer, buttons), victory conditions, sprite control and using projectiles. Beginning with a paper design the class must transform there ideas to the digital format, debug and playtest the game sufficiently and conclude by present their work to the rest of the class.

Learning Objectives

- To understand and be able to use all the Keywords learnt throughout the syllabus**.**
- To begin to develop both game design and coding skills with the use of the Hopscotch App.
- To be able to traverse a 2D plane on both the X and Y axis using multiple methods of control.
- To make creative decisions based on the basic knowledge of game design they have gained throughout the syllabus.

Tools needed

- 15 Ipads

Paper Design (Week 1) (approx - 30 mins)

Unlike the previous weeks the class will be planning their games on paper first. They will not only draw a rough sketch/storyboard for how the game will play, but will also include annotations for how the code will work. Encourage the children to be ambitious with their games, and be prepared for potentially difficult questions! Whilst this should be an independent project, if a group requires guidance to complete a particularly ambitious plan the tutor should attempt to guide them to the best of their ability. However some plans may beyond the reach of Hopscotch… so be prepared to offer alternatives! Once they have sufficiently completed a **detailed** plan (they should be able to show how the game will play from start to finish including code annotations) they may begin to create the digital version of their game.

Digital Game Building/Debugging/Playtesting (Week 1 - Week 2) (approx - 60 mins)

With each group having their plans okay by the tutor they should begin the process of creating the digital version of their games. They will have not only the later half of the first week's lesson but the first half of the second lesson to accomplish the task. Remind the class, just as in the previous weeks they will be required to sufficiently **Debug** and **Playtest** their games before presenting the final product to the rest of the class. The tutor should be circulating the group

during this period working with any groups who have specific technological requests. These could be reminders of work from the previous week, or indeed of new ideas they wish to try. As stated above, some of the class' ideas may be beyond the capabilities of Hopscotch and therefore the tutor should be prepared to offer effective alternatives…

'GameCon' and presenting work (Week 2) (approx 30 mins)

As occurs every year in the game design business, the final portion of the second week, the class will model a games convention where they will present their games to the rest of the class. This could be structured in a number of ways:

. Pupils could circulate the room playing each other's games
. The groups could take it in turns to demonstrate their game on a projector

This decision is up to the discretion of the tutor and should be made depending on the size and facilities of the class. If groups are presenting their work to the class via a projector, ask the pupils to also show the code as well as the finished game.

National Curriculum:

Coding: Write a simple algorithm whilst commanding sprites.

Coding: Debugging and checking accuracy of game.

Coding: Create a short game/animation using a simple visual programming language.

Coding: Beginning understand basic computing and mathematical concepts and vocabulary.

General: Numeracy, Reasoning Skills, Creative Design