App Review:
ScratchJr (Scratch Junior)

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ScratchJr (Scratch Junior) is a visual coding environment in an app, designed to “introduce 5 to 7 year olds” to many of the concepts and joys of digital creation and programming. Technically, it draws from the wider-known Scratch blocks-based programming environment. Educationally, a considerable amount of pedagogical design has gone into it (Flannery, et. al., 2013).

Having seen what Scratch proper can do, I was hesitant to use the lesser-featured Scratch Junior app, as I was a little skeptical as to whether it could lower the target minimum age for getting kids into coding that far, all without sacrificing a lot of the coding concepts evident in the original Scratch. However, watching my 8 year old (with very minimal guidance from me) get into ScratchJr very quickly, I soon dropped the scepticism. Note: While a long-time user of an iPad, she has neither been introduced to programming at school or at home. Probably the closest to coding she had done prior to ScratchJr, was using some redstone blocks in MineCraft to open doors via pressure-pads and the like.

Previously, I had baulked at introducing her to full-featured Scratch, because I know very well that in introducing a child to coding, it is so very easy to go just a bit too far, and put them off it entirely for some time afterwards - been there, done that. I figured I needed a coding environment where I could say and do very little, and let the learner just go ahead and do their own thing, while I could hover about or pass by occasionally to give some help with the next ‘feature’ that she wanted to add to her own evolving creation. Getting kids into coding is prime-territory for user-centred learning, and the mentor really has to stay out of the way, as much as possible. There are three very useful stand-out features of ScratchJr I will mention right up top:

1. It is an app that runs standalone on tablets, without the need to have a web browser open and connected to the Internet (as is the case with the more sophisticated Scratch environment). Parents and/or teachers of very young children - the target group of ScratchJr (5 to 7 year old novices to coding) - often do not want them connected to the Internet, and certainly not for long periods of time.

DOI: 10.4018/IJPOP.2015010104

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2. There is a ScratchJr for both iPad and Android tablets, giving it wide-ranging access to the young coding novices out there. A vast number of this cohort of learners have access to either an iPad or an Android tablet at home. Often young siblings will differ in which of the two platforms they have - like my two youngest: the youngest chose an iPad mini, while the other, an Android tablet. It gives them some independence from each other, but they also like to get together from time-to-time to share and compare their time and knowledge on the same app or game. The versions of ScratchJr across both the iPad and Android, are indistinguishable in features and interface. As such they can share their knowledge and also share the content that each of them creates via a built-in email feature (i.e. there is a project file format, that can be used to export and import Projects from within ScratchJr).

3. There is ample and highly usable Help built into the app itself, specifically: an Interface Guide (see Figure 1) which describes the single screen interface using numbered call-outs; a Blocks Guide detailing all the available coding blocks which are grouped together by colour according to like-or-related functionality (Block Categories); and a Paint Editor Guide for the built-in editor used to create either new image assets, or modify the nicely supplied repertoire of images. Also, a little animated introduction to the interface and how it is used.

Soon enough she had four scenes (Pages) set up and inter-linked in a few ways, creating an interactive story. The four images down the right-hand side are thumbnails of these four scenes, each edited in the built-in Paint Editor, after choosing a starting image from about 20 supplied.

Figure 1. The Interface Guide built into the App is accessible via tabs along the bottom of screen
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