Brian Digate
briandigate@gmail.com

User Determined Dynamic Concatenate Video Streaming:

CardanoYOA
(Cardano Your Own Adventure)

Overview:

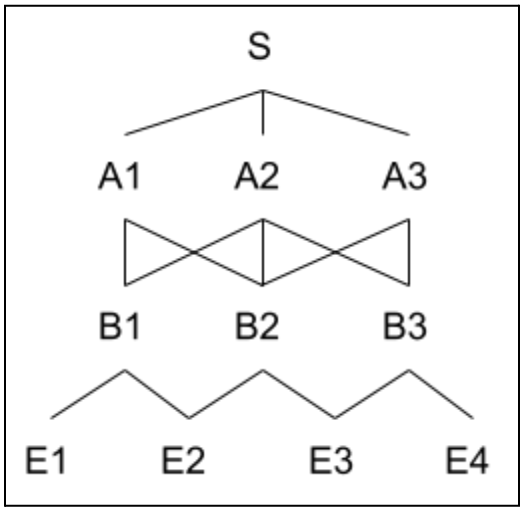
The following are conceptual instructions on how to program a system to enable users to determine the outcome of a movie utilizing the Cardano blockchain. This can facilitate viewing experiences similar to the “choose your own adventure” model. This system will be for the creation of the underlying programs and code that will run this system. It will be open source. Individuals can use this system, add their own content, get their own hardware, and run their own instance of CardanoYOA. This is to show proof of concept.

Three Pieces:

This system consists of three main pieces; a laptop with the streaming program on it, a cell phone running a web app, and a smart contract running on the Cardano blockchain. Utilizing programmed logic and inputs and outputs, the smart contract can dynamically “serve” the viewer their “personalized” movie experience.

Movie Pieces:

To get started creating your own CadanoYOA instance you will need a WiFi enabled laptop, a WiFi enabled cell phone with a web browser, and your set of movie files.



CardanoYOA will utilize this decision tree. The Content Creator (CC) will have to make eleven movie files and label them using the letters in the decision tree.

“S” is going to be the first movie file. This is how each version of the movie will start. After or during “S” a signal will be sent that will determine which of the next set of pieces to play; “A1”,”A2,” or “A3.” These pieces can all be similar, but in general; “A1” will be bad, “A2” will be alright, and “A3” will be very good. Same with “B1”, “B2”, and “B3.” “E” is for ending; the bigger the number the worse the outcome in the movie.

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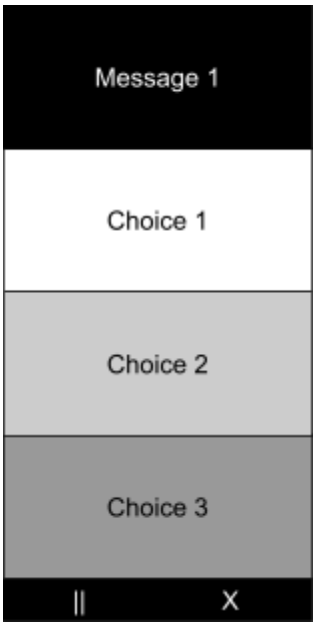
The Y Variable:

When the movie starts the value of Y will be reset to zero. After or during the starting movie file the user will be presented with three choices on the cell phone. Their choice will be given a value of -1, 0, or 1. This will be added to the value of Y. During or after the “B” section they will be presented with three new choices. This will be worth a value of -1, 0, or 1. This will be added to the value of Y. -2 = E1, -1 = E2, 1 = E3, and 2 = E4. In the case of 0, E2 or E3 will be randomly chosen.

Cellphone:

A web app will have to be deployed. This will be interacted with via the cellphone. When the user goes to the proper URL the screen will display a message, “Are you ready to start?” and there is an “OK” button. Then there will be a play button; this will send the message to the smart contract to start the movie. Then the smart contract will tell the program on the laptop to play the video file “S.” The screen will turn to a pause button.

Three Choice Screens:



During the viewing there will be three opportunities for the viewer’s choice. The screen with the pause button will turn into a screen like this one. These screens will only differ in their top section; Message 1, 2, and 3. The three boxes can be used to register a choice. The larger the number, the larger Y becomes and the worse the outcome of the movie.

There is also a pause button on the bottom that will pause everything. And the X will reset the whole system to the beginning.

Traditional COYA or Non-Traditional:

Traditionally, Choose Your Own Adventure has involved the narrative stopping while some choice between presented options is made. “Do you choose door A or door B?” CardanoYOA can do this traditional COYA, but it can also do non-traditional.

Instead of sending the “Message” screen to the web app at the end of “S” it can be sent during it. Enough time can be given for the viewer to respond to this message. And the response can

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determine what file will be played next before the current file is done playing. This can create one single fluid viewing experience. The story never stops.

Cardano Smart Contract:
The desktop app running on the laptop and the web app on the cellphone will not have the intelligence in this system. The desktop app will only play certain video files when told send when a certain video file has reached a determined time. The web app will react to the message sent and then relay the choice made.

The smart contract is in between the desktop app and the web app.It gets inputs and outputs and sends the corresponding message a long. It also keeps track of the Y variable and decides which piece to play next and what message to display when.

Further Thoughts:

This is a Minimum Viable Product. I tried to describe the most stripped down basic version possible. This can be set-up relatively very easily with an old laptop and an old cell phone or tablet. The hosting necessary for the web app can be had for very cheap and maybe even free.

People will be able to use this and create their own experiences. I want this to be expanded and improved upon. I think this starts showing what is possible with streaming movies, multiple devices, and the blockchain.

I’m sure there are security issues that need to be addressed. I also don’t know about Cardano usage fees.

Next step could be sharing these. Maybe the entire package could be downloaded to be viewed on your system. Maybe you have to download the video files, but there is one unified app that you use to interact with any CardonaYOA movie. Maybe once you create one you can upload it and then it can be streamed...

This is the beginning.