RiverRush

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Abstract:

Waiting for a lecture to begin should be more fun. That is why we created RiverRush, a collaborative and competitive multiplayer game that takes on the challenge of entertaining a large audience in an auditorium. The game encourages people to work together as a team to beat other teams by using directional movement through their smartphone as input.

The problem:

It is fairly common for large groups to attend an event or meeting in an auditorium. Usually those consist of a large amount of chairs pointed in one direction: Towards where the visitor's attention should be, such as the lecturer.

The problem we're trying to tackle is that there is almost always some time where the people in the auditorium have to wait for the event to start or during a break. During this time people are usually bored and decide to do something for themselves, like checking if they got any new messages. We want those people to have the opportunity for more engaging entertainment.

We have designed a game for this type of situation. However, such a game comes with quite a bit of constraints:
- The game should be social; we want to encourage interaction between the people in the auditorium.
- Considering people are usually located in seats right next to each other, the game should not require much space or intensive body movement
- The game should be easy to set up
- The game should be easy to drop in
- The game should be easy to drop out
- The game should support a lot of players since audiences usually have a large group of people
- Even though there are a lot of players, every player should feel significant; that their participation matters

Solution:

The idea:
There are two boats in a river with animals on them. These two boats are competing in a race to the end of the river. On the way, obstacles come flying by that can knock the animals off the boat. In order to remain on the boat, the animals have to jump over the obstacles or avoid them. If an animal gets knocked off the boat it will take them a while to get back on it. The more animals there are on the boat at any given time the faster the boat goes, so the animals on the boat have to work together to be faster than the other boat.

You can see all this on the big screen in the auditorium. People can join the game by grabbing their smartphone and connecting to a URL. When someone joins the game they can choose which team they want to be in. After that, an animal will be added to that team's boat that they will be able to control. They can now flick their phone up to jump and flick their phone left or right to move the boat in that direction.

It does not matter how much players have joined a boat, since the speed of the boat is determined by the amount of animals that are on the boat at any given time, relative to the amount of players that joined that team.

There are different kinds of obstacles. There are cannonballs that players can simply jump over to avoid. There are also icebergs (that are less frequent). In order to avoid these, players have to move the boat to the side of the river by flicking their phone left or right. The more players flick their phone a certain direction, the more the boat sails in that direction, so good collaboration is key. If the boat collides with an iceberg, all players that did not flick their phone in the right direction to avoid the iceberg will fall off the boat.

During the game, the teams can see how far they and the opposing team have progressed towards the finish. This way the teams know if they are in front or behind which will add to the competitivity.

Once one team reaches the finish, the game ends and will restart soon after.

Why it works:
Our game is a good solution to the problem, because our game is:
- Collaborative: Players in a team have to work together to do well
- Competitive: Two teams play against each other
- Individual: Everybody is in control of one animal on the boat

Since almost everybody has a smartphone nowadays, almost everybody is able to join the game. The intuitive controls are easy to understand and pick up for everyone, and they can join and leave the game any time they want.

Limitations:

The limitations of our game are:
- You need a beamer or screen and a computer to run the game on
- You need a webserver to host the HTML5 client on
- Players that want to join need to have a smartphone or some other device with a 'modern' web browser
- Up to 100 players can join, after that amount has been reached, new players will be rejected