**Exploring the Crossroads of Societal Dynamics and Game Theory in the Vacuum of CBS Survivor**

Many networks are well known, but some are seen by millions every year. Reality game shows produce some of the most volatile, entertaining, and sometimes shocking twists and turns in contestant alliances and loyalties that change based on the external driver of money. Shows like Survivor, the Challenge, and Big Brother have had immense early success, having seasons spanning from the early 00’s to present day. Within two decades the gameplay for these shows and strategies have evolved to be sharper and drive contestants to take risks for the sake of money. What we aim to do is observe how external factors drive shifts in networks, and see if there are indicators present at the show’s start that allow one to predict how the show may end.

Our ambition as a group is to analyze several seasons of CBS’s Survivor. Anecdotally as viewers, it would seem that over the last twenty years this show has aired, there has been a slow but steady trend toward more cut-throat gameplay. Early on, in the genesis of the game, loyalty was heralded, and rewarded. Anyone seen making a risky move to better their position in the game (for example, executing a blindside by sneakily driving consensus to shock and surprise an unexpecting competitor) were punished. Even if the move proved successful, the jury of peers would ultimately NOT vote for that player to win. However, in later seasons, strategic savvy and savagery has been better regarded, as emotions have taken a backseat. Players are willing to respect hustle and game-play, even if it means they were voted out.

Over the years, there have been themed seasons as well. For example, repeat players have returned to play seasons such as ‘All-Stars’, ‘Heroes Versus Villains’, ‘Second Chance’, and ‘Winners at War’. There have also been other themed seasons, such as ‘Heroes v. Healers v. Hustlers’ and ‘Blood v. Water’ (where family members play together). Building a network to assess the relationship between a player’s success in the game and their loyalty to others on the back-drop of these seasons should prove quite fascinating.

As it relates to the application of network theory, there are myriad options we can drive forward. First, there are two different scopes to which we can apply our network lens. The first would be more temporal - we can create networks for individual episodes across a season. The second would be more overarching - we can create a single network for a season altogether. Ultimately, this will allow us to carry forward both breadth analysis and depth analysis.

Next, there are also two types or ‘modes’ of networks we can create. They both relate to voting patterns. In both cases, each node would represent a contestant in the game. But in the first case an edge (and its associated weight) would represent how many times one contestant voted for the elimination of another contestant. This perspective will enable us to monitor how targeted an individual was over the course of a season. Second, and perhaps most interesting, would be to set the edges (and their associated weights) not to represent who someone voted FOR, but rather, who someone voted WITH. Do we find that certain alliances or voting blocks breed more success, or do we find that freelance agents who have loyalty to nobody at all have more success?