

Network Effects
Professor Clay Shirky
Network Proposal: The Use of ITP Lockers In Replicating A Network: Part Two
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Part Two: Predictions and Discussions

You should have made predictions about how your network will perform, like

A: How fast will your network run?

B: What is the possible route in your process?

C: What is the shortest route in your process?

D: Is it possible for some of the content to never reach its destination?

E: What percentage?

You must explain in writing what your network was designed to do, what predictions you made about its operation, what you learned in implementing and what you would do differently if you were going to build it again.

A: How fast will your network run?

I believe that the efficiency of the network will be dependent on the frequency of node use and response time by ITP students.

B: What is the longest possible route in your process?

The longest possible route within my network would be 5 node stops.

The instructions on each package informs the students who act as transporters on how to move the packages and to return the package to my locker after four possible node selections.

C: What is the shortest route in your process?

The shortest route in my network process would be through four node points.

This could be achieved if the instructions were carefully followed by the students and the final destination node, which would be my locker.

D: Is it possible for some of the content to never reach its destination?

This is possible, I expect to lose at least 50% of my data package.

Out of the four packages released within my network, I am only expecting two packages to be reach the final destination node, which is my personal locker.

E: What percentage?

I am expecting a loss of 50% package loss. This percentage is variable and depends on the overall frequency of node user and response by the students.

You must explain in writing what your network was designed to do?

My network was designed to move four color-coded packages (yellow, white, blue and red) within a network in which the nodes were individual lockers in the ITP floor and the transporters were the students. These four packages were each color coded with the following colors, red, white, blue and yellow. Each package contained the following items, five mini kit kat bars, a scotch tape dispenser, and detailed instructions on how the package could be moved within the network. Each color-coded package was initially left in its own matching color coded section on a randomly assigned node. I had no prior knowledge of the node activity before selecting the initial originating node and attempted to place them at varying positions so that they can be as randomly assigned as possible.

Overall the network was designed to facilitate the movement of each color-coded package from one colored section to another. The final destination point would be my locker after the packages accumulated both the names of the students who handled them as well as the color-coded section they were in. The color-coded sections served as a controlling agent and limited the number of node jumps of the packages between the node points, thus increasing the speed of the movement and probability of receiving the packages at the final destination point.

What predictions did you made about its operation?

I made several predictions about the overall operation of my network. The first and foremost being that the efficiency and success of this network depended on the following factors, the frequency of node use, instruction review and compliance as well as active participation by the ITP student. This prediction was proven correct by the end results of the network.

My second predictions revolved around the length of time the network would take to accomplish its main objective, which was sending all the packages through the various nodes to the final destination point. I predicated that this would be nearly impossible to calculate because this is dependent upon the following two factors, the frequency of node use as well as the active participation by the students to act as transporters and this is something I cannot calculate.

I was also correct on this prediction because the active or inactive use of the nodes, which I could not calculate, created a variable efficiency effect, which overall influenced the performance of my entire network.

What have you learned in implementing it your network?

In implementing my network I learned the importance of attempting to carefully plan out each and every possible step within the node path but also realizing that you can never successfully predict how it will function. I also learned the importance of very descriptive and accurate instructions for the node users to review and follow.

I also learned the importance of creating a network that can be scalable in order to accommodate much more larger results and possible node paths.

I learned that it is important to reward the end users before a certain action is requested from them. I witnessed first hand, when at first students were apprehensive about participating my project but when finding several mini kit kat bars in the package, their overall demeanor changed. The students became suddenly very enthusiastic about the project and participated it.

This "reward" or "gift" factor was essential for the successful deliver of 50% of my packages. I believe it can be used in any other social network as well. This factors allows the participant to understand that their input or assistance is appreciated and helps increase their chances of participating. I guess it's a basic case of ego centered need to personally gain in some way from any form action and this is this is true even in social networks.

I also learned that by increasing the amount of packages between the nodes and possible node selections, you can also increase the probability of successful package delivery but you also still need controlling agents to help restrict the actions of the node users.

I also learned that you can only estimate the overall performance of your network and that you will always encounter issues, which you did not plan for. For example I had to on several occasion to fill up the packages with more mini kit kat bars because students were opening up the packages and taking them. Without the kit kat bars to serve as an incentive for the students then my participation level would have fallen dramatically and the packages would never reach their final destination point.

What would you do differently if you were going to build it again?

If I was to build my network again, I would like to explore building it utilizing more of a team-centered approach instead of individual centered approach demonstrated in this network. I am interested in seeing if the packages would have moved faster through the node points if there were two competing teams attempting to move their package from the starting point to the final destination, I believe a overall collective team approach versus a individually centered approach might be interesting to explore in my next project.

If I have built my network again, I would increase the possible number of packages as well as possible nodes within the network.

If I could build my network again, I would allow more time to pass in order to see if all the packages would surely arrive at the final destination.

If I could build my network again I would attempt to find another venue which would truly allow more active participation by all ITP students.