

Network Effects:

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Network Proposal: The Use of ITP Lockers In Replicating A Network:

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10/10/2006

Goals:

1: You must design a network that you can build.

I plan to use a certain number of lockers on the ITP floor as nodes within a network. These lockers will be color coordinated into sections so that the nodes can only pass the cards from their section into another section of a different color. This would overall act as a controlling agent and limit the number of node jumps between the node points. The students will act as the transporting factor, which will facilitate the movement of at least four cards through fourth unique pathways before reaching the final destination, which will be my own locker. Each package will also contain a certain number of mini Kit Kat bars to act as a reward incentive for the students to participate in our network experiment.

2: Describe your network.

My network will be used in the passage of a card from one node to another until its fourth transmission point where it will be returned to my locker.

Each card will contain instructions, a blank area for personalized input and an entry field to show the list of nodes it has passed through before reaching its final destination node.

This will be accomplished by first randomly placing the cards on fourth different lockers within a specific range of colored sections. Once the node has received the card, they will review the instructions, personalize the card, and hopefully enter the node number and color code of the next node before placing it on the actual node.

This process repeats itself until the fourth node, where the end user will read the instruction informing them that they can only personalize the card and then place it into my locker.

3: You must make predications about your network.

How will your network perform?

I believe that if the students follow all the instructions and if all the nodes (lockers) are reviewed within a certain period of time, then the network can successfully send the message from their unique starting point, through four intermediary nodes, to its final destination, which would be my locker.

How long will it take to accomplish its takes?

I believe this will be nearly impossible to calculate since I am not aware if all nodes are actively being used or checked upon by the students. If the students are actively using all nodes, I believe it should only take at least one week before I receive all four cards back.

How efficiently will it run?

The overall efficiency of this network is dependent on the frequency of node use and response by ITP students.

Will the efficiency be fixed or variable?

The measurement of efficiency within this network will be variable to the frequency of node use and receive as well as response time by the students.

How variable will it be?

It will be extremely variable because it will depend on the individual choices made by each student to either check not only their node but also take the time out to participate in passing the card on to the next node in a timely fashion.

Requirement #1: Design

It must be moderately complex. It must have 3 nodes—send, receiver and some sort of intermediary.

I will be the original sender of all cards and the nodes will act as the intermediaries. I will also act as the final receiver of all four cards.

I will act as the sender by first placing the card into the first node with instruction on how it can be passed along to any node choice of their choice as long as it is in a different colored section of nodes. After the fourth node has received the card, he or she will then be instructed to place the card on my locker.

In order to reduce the complexity of the network, I will have instructions on the cards on how the cards can be moved within the network as well a limit the number of message nodes involved. I plan to use at least four cards and limiting the overall progress by having the cards sent to nodes within different colored areas.

Requirements#2: Description.

Nodes: the nodes in my proposed network are the individual lockers as well as the students.

Protocols: The protocols for my network will use the transmission standard of three digit numerical values for each node point, while the application layer will use a number scheme to re-assemble the drawing on the cards at the final destination which would be my locker.

Transport: ITP students will handle the transport of the card within the network from one node to another.

Packages: Within my network the package will consist of an colored card which will contain two forms of information, one being instructions on one side and a blank entry field which will show the nodes it has passed through as well as a section for personalized entry by each node. Mini kit kat bars will also be included in each package to act as a incentive for the students to participate in my network experiment.

Content: The contents within my network consist of a portion of a word on the postcard with instructions, and in the intermediary phase, the contents will be postcard with information regarding the nodes they went passed through as well as complete on them.

Addresses: The address will be the three-digit numerical value of each node.

Stack:

Application Layer: how do the sending and receiving nodes handle the content?

The sending and receiving node will handle the content in a very similar fashion. In my network each sending and recieveing node will each reicve the very same instructions so that their overall actions will be very similar in transmitting the cards to each other until the fifth node.

For example when a node receives a message/card, it will read the instructions and then write down the next node that it send it to as well as add any personal factors and this cycle will continue until it reaches the final destination point.

Transmission Layer: How is the content sent through the system?

The content will be contained in envelopes which the cards will be placed within. These cards will then be sent through the network from each node point via ITP students.

“Physical” layer: What layers is your transmission layer to be built on top off?

The most basic network layer that my network is built on top of would be the ITP student themselves as well as the physical location and proximity of the lockers.