GALAXY NEWS

ILLUSTRATED WEEKLY NEWSPAPER

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FULTON FURNACE FALLOUT

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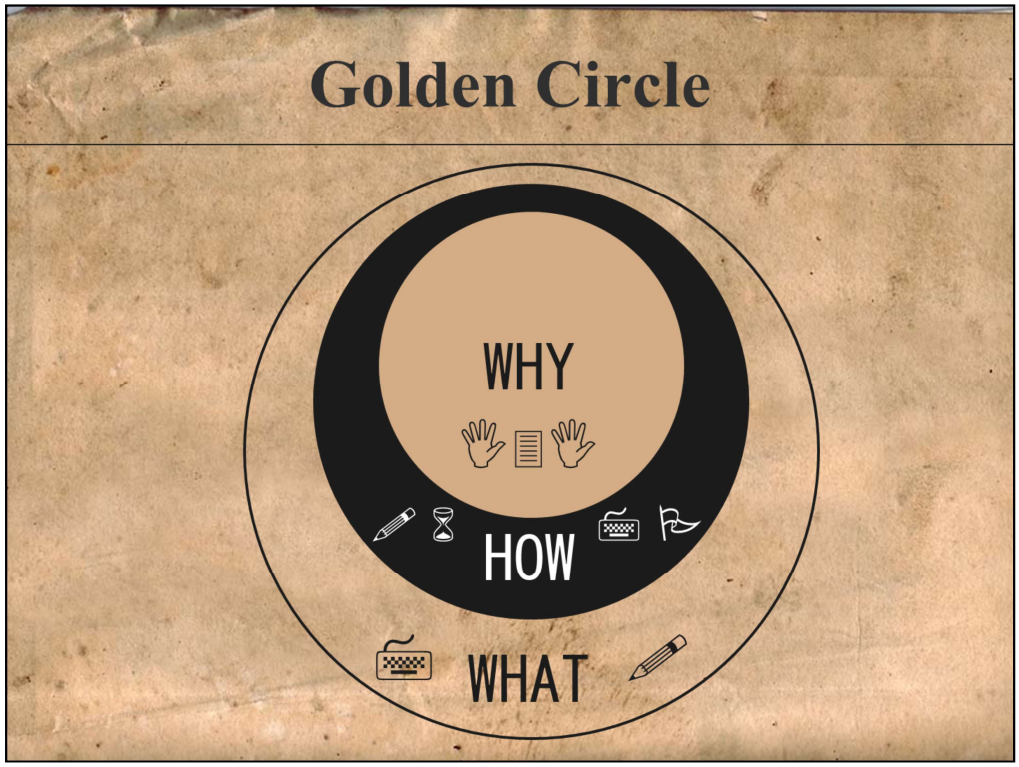
The chaotic environment created in the post-apocalyptic world has resulted in the uneven distribution of resources amongst the population. This lack of access to fundamental resources results in shortages, hoarding, and civil unrest that affects entire communities that may be poorly managed. In order to address the mismanagement of communities, we need to provide access to information regarding inventory of resources (what we have), gaps in resources (what is needed), and communication between communities.

We propose a personal management system that allows individuals to record what they have and what they need, as well as providing a means of communication between people. The proposed solutions range from extremely low-tech to a more high-tech solution.

The first approach in solving this problem is a typical pen-and-paper approach. In this solution, the user will write their inventory and needs on a list. The user will also scribe handwritten notes to communicate with others.

The second solution is a mobile personal management system. This system is a bracelet that communicates with the wearer by telling them what they have, what they need, and can be used as a gate tag for entrance into different communities.

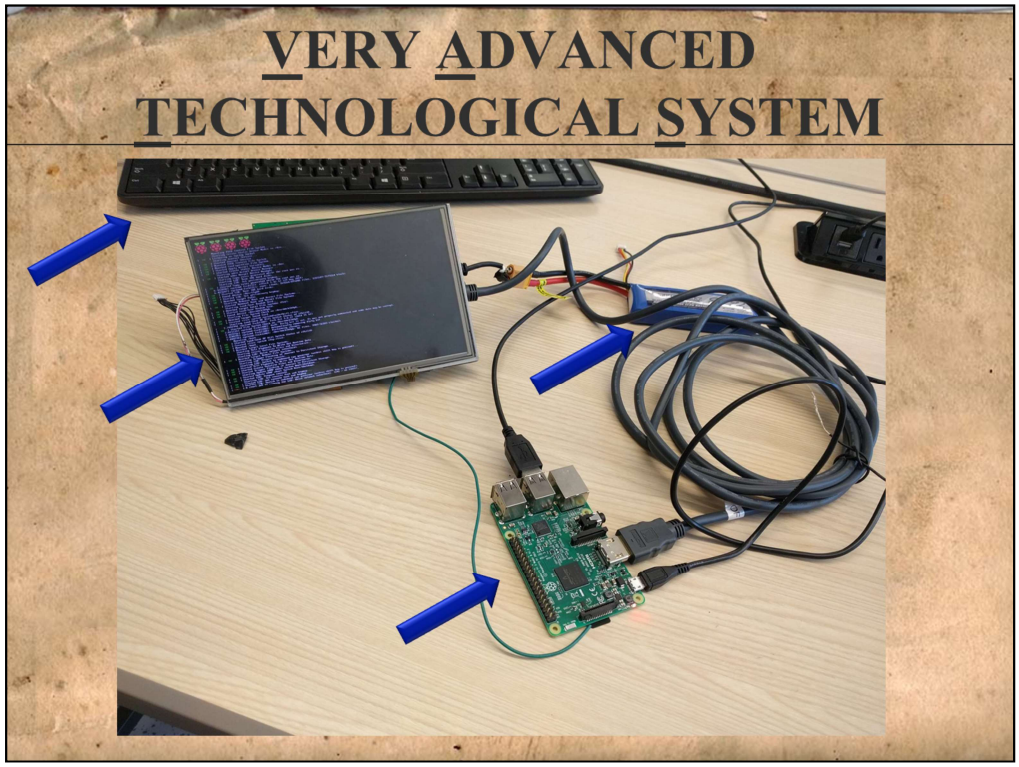
The third solution is a more centralized solution that is a fully integrated software program that works similarly to solution two. In addition to keeping track of inventory, the



WHY- The only way an entire community can benefit from technologies- water filtration and irrigation, power systems, personalized medicines, etc- is if they cooperate. Our service helps leaders determine which resources should be used to develop such technologies and sustain the population. Community members use the service to connect to their leader, providing feedback and contributing to the effort of rebuilding society. Without an inventory service, resources might be hoarded amongst members, and people miss the opportunity to innovate together.

HOW- a solution that records inventory, calculates the estimated time range of supply, and serves as a bridge of communication between the leader and the community members.

WHAT- an inventory service, primarily for a leader, but ultimately for the benefit of a community



Include how it works– hardware aspect

HOW IT RUNS

DATABASE

- Inventory
- Rate of consumption
- Calculated times to depletion
- Community alerts
- Optimization advice

VATS BACK-END

- Calculate times to depletion
- Attempt optimization
- Archive outdated alerts and feedback

LEADER INTERFACE

- Log inventory
- Log rate of consumption
- View inventory
- View feedback

UML Diagram

STOCHASTIC MODEL

Single Town: $x' = r_1 x^2 - r_{11}x^2 - r_{21}xy$

Trading Partners: $x' = r_1 x^2 - r_{11}x^2 - r_{12}xy$

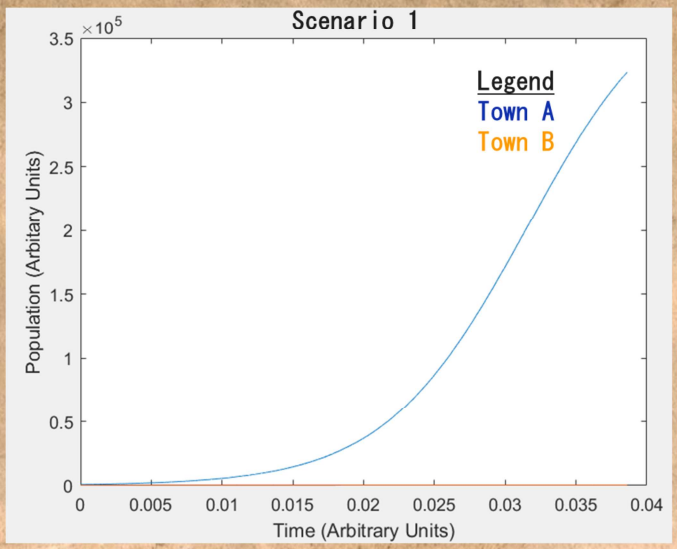
$y' = r_1 y^2 - r_{11}y^2 - r_{21}xy$

x = density of resource in Town1

$\frac{X'}{x} = \frac{1}{s}$ = rate of growth

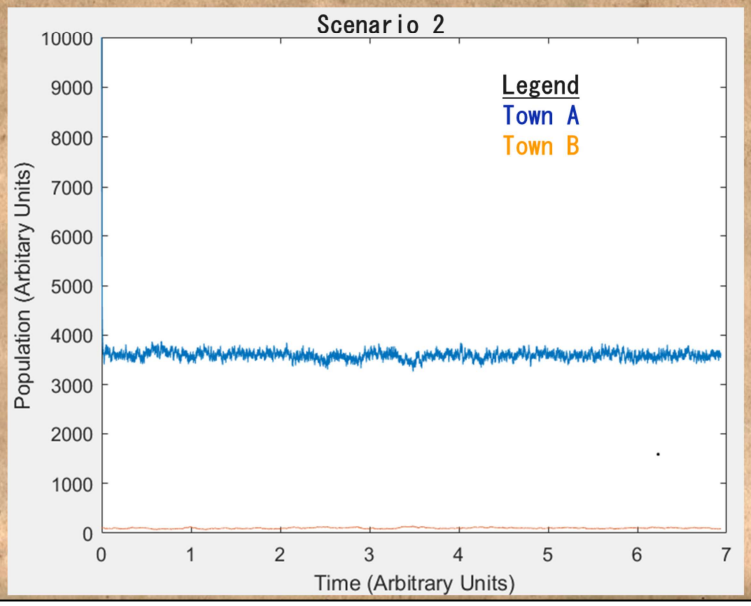
Growth rate = $(r_1 - r_{11}x - r_{12}y)$

SCENARIO: TOWN A DOMINATES



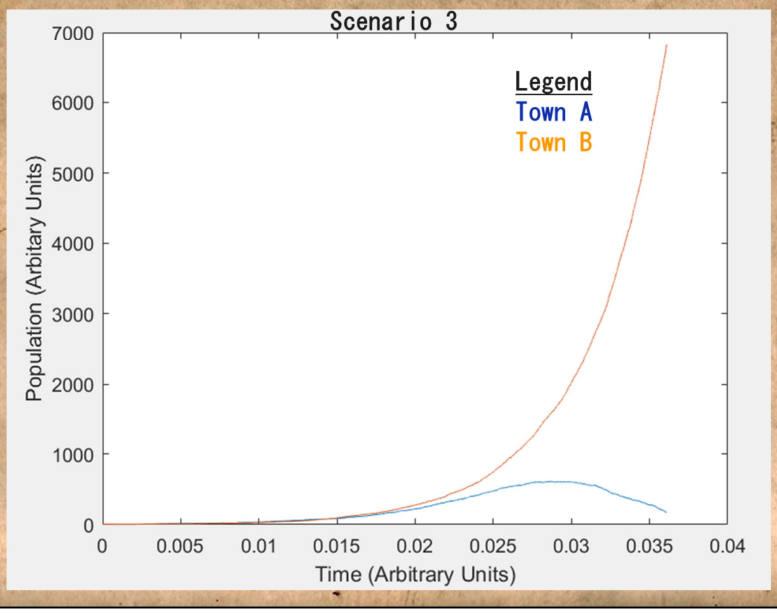
Town A has more of the resource and produces more overall. Does not share. Both use minimal amount of resource per unit time.

SCENARIO: TOWN B DEPENDS ON A



Town A has a large amount of resource and trades some amount with town B which has a small amount of resource but still produces.

SCENARIO: RANDOMIZED



Both start with same amount of resource and produce/spend same amount. Randomness takes control here.

THANK YOU