# THE GEORGE WASHINGTON UNIVERSITY WASHINGTON, DC

# SELF-TRACKING E-CURRENCY

ABIGAIL H. SHRIVER

THE GEORGE WASHINGTON UNIVERSITY
WASHINGTON, DC

#### Background

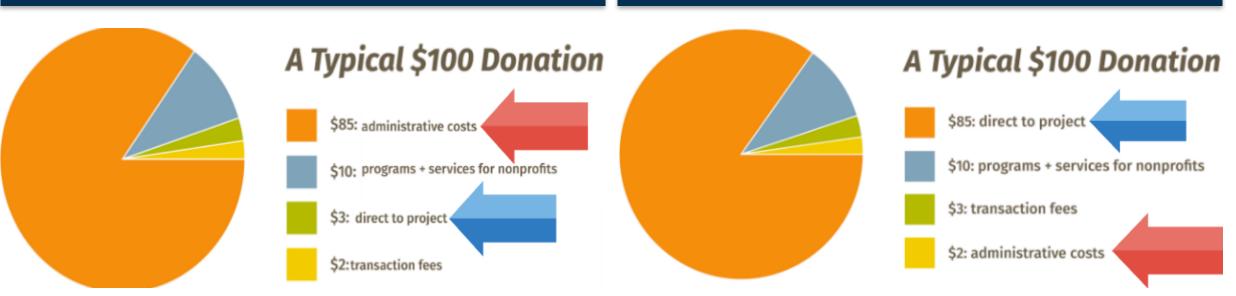
The currencies in the current finacnial system do not have the capacity to automatically track the means in which transactions occur. This creates a finaical system in which tracking and verifying transactions has costly overheads in both time and money. Self-Tracking E-Currency allows businesses, individuals, organizations, and the government to restrict how donated or allocated funds are allowed to be spent, and then automatically sends verifications on when and how funds are spent.

### **Estimated Impact on Non-Profit Donations**

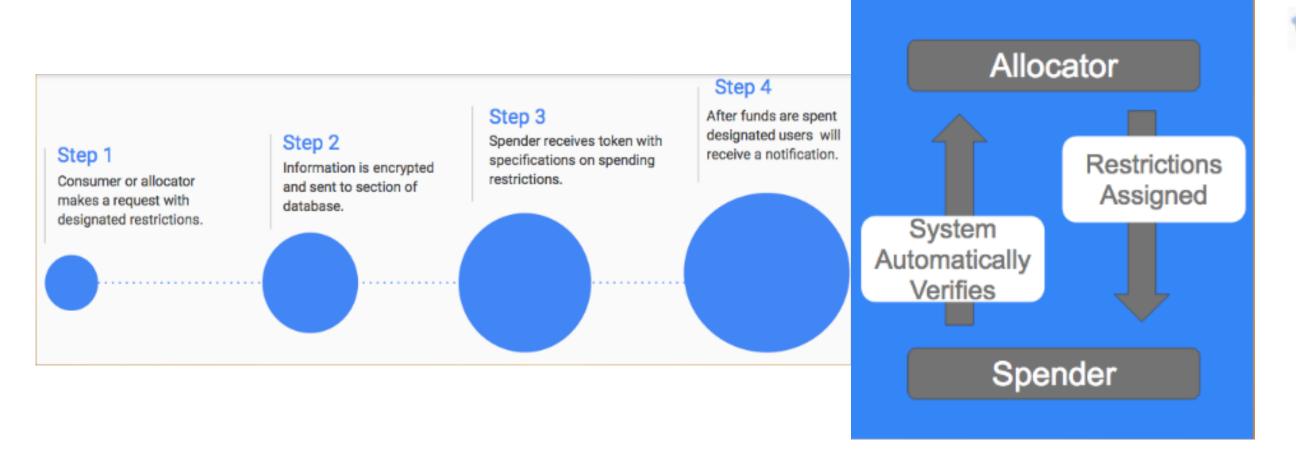
This system aids in the solution to the major factor inhibiting individuals from donating to Non-Profits. Currently, individuals are hesitant to donate to non-profits due to the increased awareness that many non-profit donations go to administrative overhead.



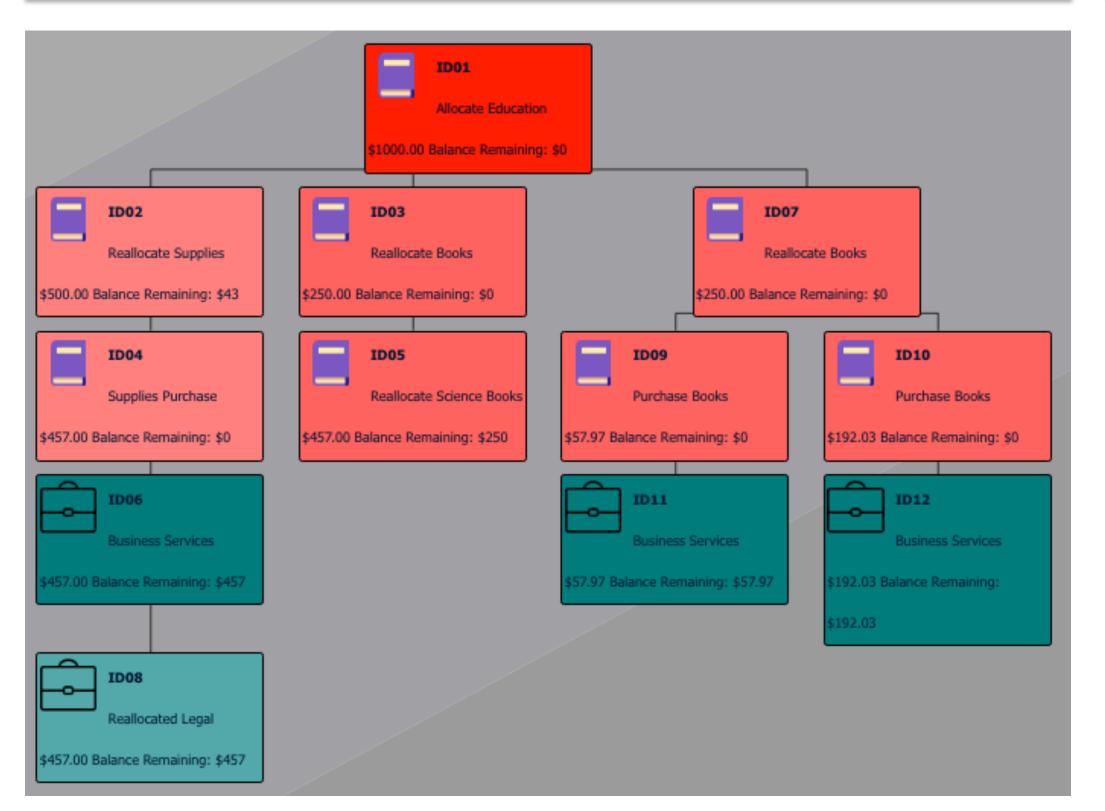
**Example Transformed Typical Donation Allocation with Self-Tracking E-Currency** 



## **Process and Design Overview**



#### **Transaction Tracing Graphs**



#### **Streamlining Government Programs**

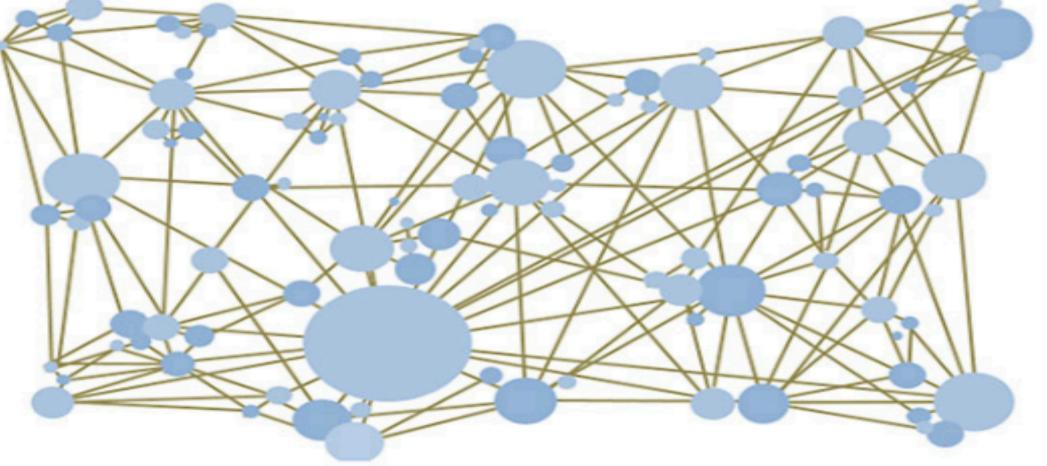
Through the use of this system the process of funding and monitoring government programs becomes completely automated, allowing the overhead costs of allocating and dispersing funds to be minimal. The decrease in overhead ultimately allows for more funds to go towards programs and individuals rather than to administrative costs.

The graphic to the right demonstrates how the currency graphically displays transaction history, the colors demonstrate broad categories of spending, and subcategories are specified in the tree node.

#### **Automating Corporate Expenditures**

Currently many businesses have a complex, confusing, and time-consuming expenditure process. Through the use of Self-Tracking E-Currency funds are automatically restricted when allocated and therefore no approval process is necessary, designated employees can spend funds as allocated automatically while the Self-Tracking E-Currency does the work of ensuring funds are utilized appropriately. Furthermore, allocators automatically receive notifications that the funds were appropriately utilized.

#### **Example Complicated Expenditure Approval Process**



#### **Organized Automatic Expenditure Approval Process**

