# The Consensus Proposal

*Early Draft*

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## Problem Statement

The American representative democracy was created over 200 years ago and does account for the potential of the digital revolution.

## Proposed Solution

The consensus project aims to add new digital capabilities that were not possible during the republics original creation. Consensus would be a digital opinion aggregation system, which works in parallel with the existing representation and public voting systems. Consensus would not simply be a digital voting system in that it would support scaled responses as well as binary yes no votes and alternative proposal [URI](http://en.wikipedia.org/wiki/Uniform_resource_identifier) ingestion.

Data collection would have a confidence rating as the first of many choke points to ensure that Consensus data is representative of actual legally admissible entities. An entity wishing to have their input rated at a higher level of confidence would need to go through various steps of vetting to get their personal Consensus account confidence improved. Vetting steps would be expirable and non-expireable as another step of insuring confidence through action.

Consensus data would be two sided, in that the need for anonymously adding your data much like in the current voting system would be retained. A user would have full access and control over their Consensus history. And as admissible entities cognitive models change they could change the history of their Consensus input. Consensus users would be capable of destroying their history and only sharing a current Consensus data set if that is their choosing. But personal access to the history is a way of ensuring that a users identity has not been stolen.

Consensus data histories would be version controlled using the [GIT version control system](http://en.wikipedia.org/wiki/Git_(software)). This would allow change analysis and sophisticated correction mechanisms to be developed working with a standard open source piece of software.

Consensus data would be distributed with the user being able to choose an unlimited number of places to store the data so that they can be assured of the integrity of their input. The governing body inclusion of Consensus data would represent a centralized source of record, but one that is challengeable if the distributed repositories are not in agreement with the governing source of record.

Consensus data would contain strong integrity checks using a [Merkle tree algorithm](http://en.wikipedia.org/wiki/Merkle_tree) much like the Bitcoin Block chain algorithm. This enables the integrity of the Consensus inputs can be both distributed and challengeable.

Consensus data would be self descriptive, in that the schema necessary for understanding the structure and context of the data is transported within the data itself. This would allow for multiple systems to be easily created to work with the data even given shifts over time or Consensus application ecosystems.

## Implementation Plan

Should the Consensus proposal become an actual project, the implementation would be one of many steps of validating all of the assumptions of this proposal, refining the software and building up a non-homogenous software and computing ecosystem and putting a rigorous software development lifecycle team together. Government adoption of the new Consensus data would begin after the validation phase.

Consensus data can be used immediately to inform the representatives and leaders of the various governing bodies by providing better, richer data than the current polling systems. This data alone could revolutionize the engagement of individuals and instill a greater sense of civic engagement.

## High Level Architecture

## Known Issues

## Security Concerns