Using Technology to Efficiently Assign Delegates to Conference Committees

Overview

- Background: general Service Conference
- The Problem: challenges in assigning delegates to committees
- The Solution: shallow dive into the Committee Assignment App
- Demo: Watch the Committee Assignment App in action
- Challenges: design and usage

Avoid Past-Trustees



General Service Conference Committees

- 93 Delegates meet for the annual General Service Conference
- Agenda items are considered in committees before going to full Conference
- 11 primary committees and 2 secondary committees
- Roughly half are in their first year
- Half of the delegates already have committee assignments

Delegate Committee Assignments

Random assignment but with conditions

- Large regions have at most 2 delegates on a committee
- Avoid having adjacent areas on the same committee
- Committees should have only one delegate from a single state
- Delegates from same region should be from different panels
- Committee gender balance should reflect the conference
- Area should not serve on same committee twice in a row





Committee Assignment Web Application

- Built a proof-of-concept
- Sent a couple of messages to GSO
- Pandemic intervened
- First used in 2020

How the application works



Constraint validation

- Randomly pick a delegate
- Validate constraints against a committee
- If it violates constraints, move to the next committee



Constraint validation



- Never seen a perfect assignment
- We need to loosen the constraints to get a full assignment
- Which ones do we loosen first?
- Constraint configuration

Assignment Loop Example

Start with 45 delegates

- Loop 1: With strict constraints, 8 are still unplaced
- Adjustment 1: Allow two adjacent areas on the same committee
- Loop 2: After assignment, 3 are still unplaced
- Adjustment 2: Make a slight gender imbalance ok
- Loop 3: After assignment, 1 is still unplaced
- Do this 10 times

How the application works



Inner and outer loops

- Repeat the inner loop 20 times and pick the "best"
- Inner loop is the the round of 10
- Outer loop is the round of 20
- "Best" is the assignment with the lowest inner loop count

How the application works



Problems solved

- No need to be in the same room
- Reduced time taken to do the assignments
- Better quality assignments
- Ease of determining when assignments are flawed

Live demonstration

Challenges

- Need to keep application as simple as possible
 - Simplicity of development
 - Simplicity of use (only used 5-10 minutes per year)
 - Cost/benefit
- Kept the process similar to what was done manually
- Technology presents challenges to service