# Direct Democracy Is it possible? Do we want?

#### Henrik Ingo November 16th, 2007 Nottingham

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#### About me

- Finnish software developer (well, currently a manager)
- Background in Internet and Open Source
- Author of book: Open Life: The Philosophy of Open Source (http://openlife.cc/)
- Have been thinking about todays topic since I worked at Helsinki University of Technology. First presentation today.
- Talk and slides are only a summary, full paper at http://openlife.cc/

### e-Democracy, Open Politics, etc...

- Current efforts are really small things
- Enhancements to current political process
  - e-voting
  - DeanSpace
  - \* eGovernment
- Not revolutionary, like Open Source is in software
- "Internet changes everything" we should aim for revolutionary

#### Questions that we should ask ourselves

- 1. Is there anything wrong with how democracy currently works? If so, what in particular could work better?
- 2. What would an alternative process look like?
  - More than just "Direct Democracy"
- 3. Is it possible to implement the proposed alternative with current technology?
  - Failure of many e-voting trials
- 4. Is the alternative really desirable?
- 5. How to actually introduce the new system into practice
  - ie, how to do a revolution
  - Not discussed here

#### Failures of modern democracy

Democracy is the worst form of government except for all those others that have been tried.

- Winston Churchill
- Is there something wrong with the idea of democracy? (eg. ineffectiveness)
  - \* NO!
- Is there something wrong with current implementations of democracy?
  - YES: Failure to fully represent the voters, or the full spectrum of voters opinions

### 2 types of failures

- Failure to represent the full spectrum of voting citizens
  - By design: France, Sweden
  - ★ Two-party system: US, UK
  - Other cutoff effects: Finland...
  - ★ Possible remedy: STV
- Failure to faithfully represent the pre-election commitments after the election
  - ★ = lying
  - or, a candidate may not be a perfect representative of all of my opinions
  - Remedy: Ability to replace or override my candidate at anytime

### Criticism of Direct Democracy

- Decisionmaking is a full time job. Hours of voting every week.
  - Certainly! System should account for this.
- Informed decisionmaking is a job for specialists
  - This is an argument against democracy, not direct democracy
- Direct democracy would lead to populist decisionmaking
  - Argument has some merit, but is again "antidemocratic" in itself
  - Perhaps a well defined direct democracy system would obviate the need for populism
- Sometimes majority can be wrong

### Desires for direct democracy

- Fine grained no cutoff effects
- Can elect a representative
- Can change representative at any time
- Can participate directly at any time (overriding representative)

# Specification of a Direct Democracy process

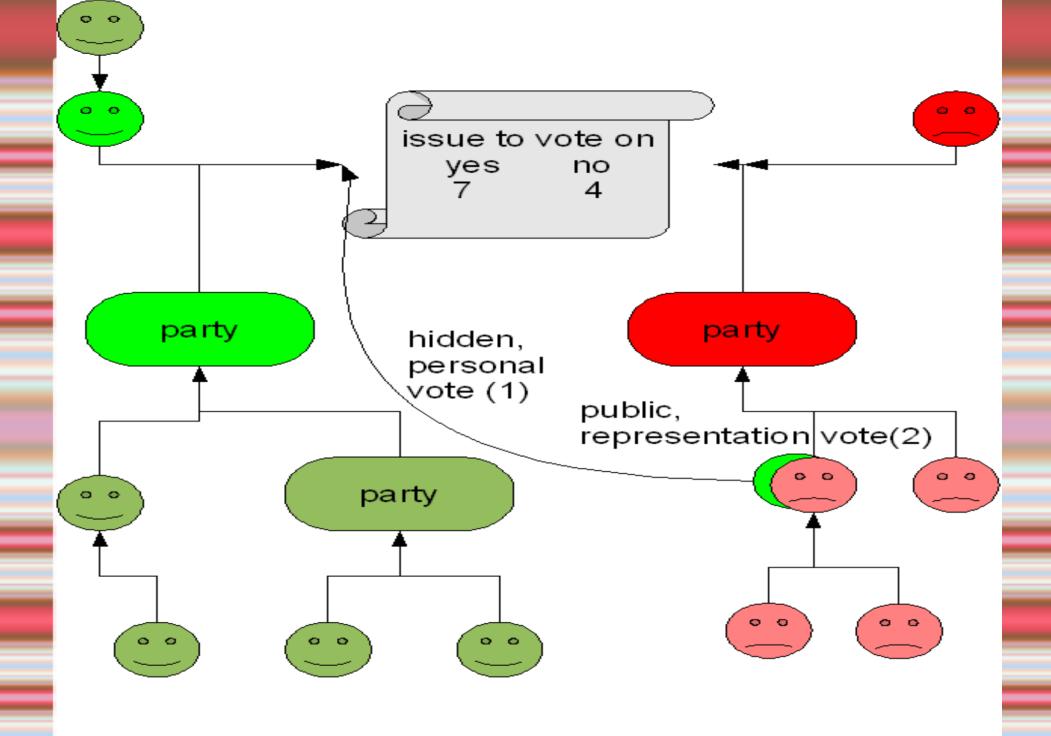
- 1. The system is comprised of the voters participating in it.
- 2. For each issue to be voted on, a voter has a public vote and a private vote. The private vote is secret.
- 3. To participate in the vote, a voter may cast his private vote, picking an alternative on the ballot. The private vote is the actual counting vote and one voter has one vote.

- 4. Casting a public vote is not necessary and doing or not doing so does not directly alter the result of the vote. The public vote accomplishes the mechanism of representation but it does not itself count as one vote. A person who will be casting public votes can in advance announce himself as a voter that desires to do so, thus letting it be known that others could vote for him.
- 5. The public vote is separate from the private vote and it is impossible to know whether they are identical or not. The public vote is public.
- 6. On each issue, a voter may wish to not vote directly on the issue at hand, but instead give his vote to a representative. It is possible to give the vote to any other voter who has announced that he will be casting public votes. The value of the public vote is the sum of secret votes behind it.

- 7. Also the public vote can be either directly on the issue, or for another person. This way representation can be chained - Alice votes for Bob, Bob votes for Cedric and Cedric is voting directly on the issue - eventually accumulating to high profile politicians who'se public vote on the issue will swing a pyramid of thousands of votes.
- 8. The deadline for casting public votes is an amount of time before the deadline of casting private votes (say 1 week). This safeguards against abuse, it is possible to change ones private vote after public votes are known.
- 9. Summarising points 1-8: Each voter has a private and a public vote. Both of these can be either a direct vote on the issue, or a vote for another person in the system. The private vote counts as one vote. The public vote does not itself count as a vote, but the contents of the public vote is transfered down to the other voters who have voted for this person, the value of the public vote in essence is the sum of private votes thus connected to it.

- 10. In addition to individual voters, the system also contains parties, which are registered as being part of the system.
- 11. Each party has 1 public vote but no private vote. The public vote can be directly on the issue or on another party or a person. Thus the party in itself has no voting power. It's task is to cast public votes and thus represent voters who have chosen to vote with this party.
- 12. Voters may vote for a party similarly as they vote on individual persons as an option to voting directly on the issue.
- 13. The internal organisation and the decisionmaking rules of a party are undefined. They could be anything, but obviously it typically makes sense for them to be public, so that voters wishing to vote for a party know what they are getting.

- 14. In addition to voting on each issue, a voter can also specify a default vote. There is both a private and a public default vote. The default vote can only be for other persons or parties.
- 15. If the voter abstains from voting on an issue, but has specified a default vote, his vote becomes what the default vote is. This happens with both the private and public vote, respectively.
- 16. The default vote should probably have an expiration date, before which it should be renewed or it will be set to empty vote. Otherwise people who abandon participating in the political process, could have their vote being used by a representative they happened to vote on 50 years ago when they were young and the system would be skewed towards a kind of slowness.
- 17. The voting method should be Single Transferable Voting.



Actively partipicating voters are bright, passive voters (letting representative decide) are dark

## Requirements for e-voting

- 1. Eligibility: Eligible voters can vote, they can vote only once and no others can. Voters are identified as being who they are.
- 2. Integrity: All votes are tallied correctly, no valid votes are discarded and no extra votes have been introduced.
- 3. Verifiability: All of this can be verified preferably by any observer or at least by enough independent verifiers or so that each voter can verify that his own vote is correctly tallied and that the amount of votes is correct.
- 4. Privacy: It is not possible to know how a particular voter voted.
- Receipt-freeness (or non-coercibility): It should be impossible for a voter to prove that he voted in a particular way. (This is to prevent buying of votes or coercion and is complementary to but still different from privacy.)

### It's not as easy as you'd think

- MUCH harder than online banking (just 2 requirements)
- Some requirements seem to be conflicting (privacy, eligibility)
- Yet, e-voting has been solved or mostly solved
  - http://www.cs.surrey.ac.uk/FMS/evoting/bibliography.php
- Impossible for online voting to provide (5)
- Current algorithms do e-voting in modern elections, new research would be required to implement the system proposed here
  - ★ Millions of "candidates"? Default votes? STV?