

Demystifying Complexity: Why Worse is Better in Voting

Smári McCarthy¹

In his article *Liquid Democracy versus Direct Democracy through Initiative and Referendum: Which Is Best?*², Arjen Nijeboer argues that a) Liquid Democracy (LD) is overly complex, and that b) Direct Democracy (DD) with Initiative and Referendum (I&R) is feature-compatible with Liquid Democracy. In this article I intend to refute both of these arguments.

Keywords: Liquid Democracy, Direct Democracy, complexity, voting, voting systems, ballot, Initiative and Referendum

Introduction

In his article *Liquid Democracy versus Direct Democracy through Initiative and Referendum: Which Is Best?*³, Arjen Nijeboer argues two core points, namely that a) Liquid Democracy (LD) is overly complex, and that b) Direct Democracy (DD) with Initiative and Referendum (I&R) is feature-compatible with Liquid Democracy.

I intend to address particular issues with the article rather than the article as a whole, and attempt to discuss them in the context of democracy in general and DD) and LD in particular. Rather than focusing on DD, which is a term often bandied about with much varying definitions, I'll specifically focus my comparisons on I&R, and attempt to discuss and where appropriate clarify and defend LD with reference to I&R rather than the rather more nebulous DD.

Complexity

As Gökçe Sargut and Rita Gunther McGrath have argued⁴, “it’s easy to confuse the merely complicated with the genuinely complex...If you manage a complex organization as if it were just a complicated one, you’ll make serious, expensive mistakes.” Nijeboer states that voting processes should be as simple, transparent, orderly and fraud-proof as possible⁵. Some of these demands are reasonable, others not. Let us deal with each in turn.

Simplicity

In his paper, Nijeboer uses a common appeal to emotion, the so-called “old people don't understand it” argument, with a tacked on addendum of “uneducated people don't understand it.” While such failure to understand a voting system seems, at the surface, necessarily undemocratic and unacceptable, is only

¹ Executive Director, International Modern Media Institute. smari@immi.is

² Arjen Nijeboer, *Liquid Democracy versus Direct Democracy through Initiative and Referendum: Which Is Best?*, Democracy International, May 2013. [Hereafter: AN2013]

³ AN2013

⁴ Gökçe Sargut & Rita Gunther McGrath, *Learning to Live with Complexity*, Harvard Business Review, March 2001.

⁵ AN2013

partially valid on deeper investigation. The argument is a subset of the general “people need to understand their voting system” statement, which turns out to generally not apply. In reality, most countries are governed through voting systems that are not commonly understood by the electorate – they are asked to simply trust in the system rather than be bothered by the details. While it is relatively easy to argue that this is undemocratic - that in fact it is impossible for people to safeguard democratic values if they do not understand the mechanisms by which decisions are taken - generally speaking people have not chosen to do anything about it, which suggests that there are limits to how much the average voter cares about the practical details.⁶

In this way, while Scotland's Single Transferable Vote (STV) is largely comprehensible to most Scottish voters⁷, many details of how the count is performed elude the common voter⁸. This is not due to the system's inherent incomprehensibility, but rather due to most people simply never having familiarized themselves with the details beyond the proper use of the balloting mechanism.

It is important to distinguish between a balloting mechanism and a voting system. A balloting mechanism is a method by which an individual registers her social choice, whereas a voting system is a method by which a population's aggregate social choice is determined, given a set of ballots. Many – such as myself – will treat the balloting system as part of the voting system generally speaking, but will still argue the part as distinct from the whole.

It has become a matter of course that people are introduced to democracy through massive oversimplifications. Most schoolchildren, if asked to organize an election and determine the winner, are likely to do so by implementing a First Past The Post (FPTP) voting system⁹. While FPTP is certainly the most commonly understood voting system – with a balloting mechanism consisting of a single mark on a ballot and its winner being he who receives the most marks – it is demonstrably suboptimal outside the case of a two-party election, as with three or more parties, majority rule¹⁰ is not guaranteed, and plurality rule is generally considered unacceptable due to the disregard for the social choices of the majority that comprises a counter-plurality. Once the number of parties involved in an election grows beyond two, social choice can only meaningfully be captured if the attitudes of the voter are captured beyond a simple check box..

It is worth asking here what Nijeboer means by “better”. Does it refer to a more democratic result, or a greater chance of participation? What does more democratic mean? What does simpler mean – as it

⁶ It is possible that this effect is due to general voter disempowerment: that whereas voters do not generally think they have the ability to change the system, they are less inclined to get intimately familiar with it. That would be a good topic for another paper, but is outside the scope of the present one.

⁷ Alistair Clark, *Second Time Lucky? The Continuing Adaptation of Voters and Parties to the Single Transferable Vote in Scotland*, Representation, 2012.

⁸ As an example of how even sophisticated voters may fail to understand more advanced voting systems, in *Do wrong parties ever win?*, John H. Redekop, who holds positions in Adjunct Professor of Political Science at Trinity Western University and Professor Emeritus of Political Science Wilfrid Laurier University, argues against STV by presenting what he calls the “Hockey analogy”, wherein he confuses STV with a Borda count. <http://www.nostv.org/team.html>

⁹ I could not find any evidence of this; it seems to be untested. I have suggested to a social scientist friend that it might be worth investigating.

¹⁰ Arrow (1951) showed that majority rule is an acceptable social welfare function, as May (1952) did for the two-party condition. Nakamura (1979) further expanded on the issue of majority rule and introduced the idea of a “best” core of alternatives.

appears that Nijeboer considers a simpler voting system to be “better,” as it is less exclusionary. From Nijeboer's article, it can only reasonably be inferred that “better” is defined as “more inclusive,” and that the simplest balloting mechanism is therefore the “best”.

Voting systems are information bearing – their purpose is to acquire information from multiple parties and arrive by some common means at a most reasonable result. It is easy to demonstrate that a single vote in an FPTP voting system has $\log_2(N)$ bits of information for N voters¹¹. By comparison, a (fully filled out) ballot under STV provides N bits of information¹². An STV ballot provides more information about the voter's choice. It is perhaps not often expressed as an explicit motive, but it seems that the entire point of voting is to express choice. If individual choices are better expressed, and better collective decisions reached, through the conveyance of more information, we must infer that the system which provides more information is necessarily better.

In this sense, STV is certainly a more “complex” system, but is not in fact more “complicated”. In studying cumulative voting, Engstrom and Brischetto noted that “expanding the permutations in which votes may be cast does not necessarily make voting more difficult”¹³

From this comparison of FPTP with STV, it becomes clear that there is not necessarily a benefit in having a simpler system, and that the issue of complexity in LD should not be seen as a fault. Indeed, there are numerous psychological issues which need to be addressed, which I shall not endeavor to do here, such as in which way ballots should be organized so as to minimize the cognitive complexity of voting. For instance, a ranked list ballot is mathematically equivalent to a pair voting ballot, but the two promote very different voter behavior.

Transparent

Whether LD is less transparent than I&R depends heavily on the definition of transparency. It is becoming increasingly frequent that when people use the term “transparency”, they are not in fact referring to the availability of all relevant information, but rather to the inability of people, having that information, to make heads or tails of it. This is an increasingly common problem, as the world's information has long since stopped being scarce and the priority function for those previously engaged in its aggregation has now become that of filtering, sorting, and displaying.

James C. Scott has described *legibility* as “a state's attempt to make society legible, to arrange the population in ways that simplified the classic state functions of taxation, conscription, and prevention of rebellion.”¹⁴ It refers, as Venkatesh Rao has pointed out¹⁵, to attempts to rationalize - by force if necessary - those bits of reality which seem overly chaotic, and reject anything that does not meet the criteria of appearing logical to the person in question. This tendency was referred to by Scott as high modernism.

¹¹ As each choice is mutually exclusive, a simple numbering suffices.

¹² The ranked ordering can be treated as multiple successive FPTP ballots, though not repeating, giving us $2^{\log_2(N)} = N$ bits.

¹³ Richard L. Engstrom and Robert R. Brischetto, *Is Cumulative Voting Too Complex? Evidence From Exit Polls*, Stetson Law Review, Vol XXVII.

¹⁴ James C. Scott, *Seeing Like a State*, Yale University Press, 1998.

¹⁵ Venkatesh Rao, *A Big Little Idea Called Legibility*, Ribbon Farm, July 26 2010; <http://www.ribbonfarm.com/2010/07/26/a-big-little-idea-called-legibility/>

Rao suggests a recipe for the failure mode of high modernism, consisting of seven steps: 1) Look at complex and confusing reality, such as the social dynamics of an old city, 2) Fail to understand all the subtleties of how the complex reality works, 3) Attribute that failure to the irrationality of what you are looking at, rather than your own limitations, 4) Come up with an idealized blank-slate vision of what that reality ought to look like, 5) Argue that the relative simplicity and platonic orderliness of the vision represents rationality, 6) Use authoritarian power to impose that vision, by demolishing the old reality if necessary, 7) Watch your rational Utopia fail horribly.¹⁶

With these thoughts in mind, Carson has made reference to market dynamics¹⁷, suggesting that the complexity of the market, when reduced to facilitate high modernist goals of legibility, result in totalitarian governance structures. Similar things emerge when legibility is imposed on markets by market actors themselves, by way of natural or artificial monopoly. Per Scott: “The state has no monopoly on utilitarian simplifications.”¹⁸

This is all to say that, yes, it is true that from a data-legibility perspective, there may not be much “transparency” in LD, and that certainly a simple tallying as a result of a relatively cumbersome process of I&R may well yield more legibility, but legibility alone does not in fact guarantee transparency and in fact it may lead to other and substantially worse side-effects.

Perhaps it is surprising to some that the opposite applies in this argument: I&R processes generally involve an unspecified group of people who decide to start an initiative, an untransparent process of signature collection, a set of committee meetings that are more often than not conducted behind closed doors, leading to a referendum process governed by the common trappings of elections - right down to the transparency failings of the appointed electoral committee.

By contrast, the system of LD, if correctly implemented¹⁹, cannot actually function without full transparency, as each individual who participates in a decision making process in it must independently be able to verify the validity of the procedure - but we will return to this issue in coming sections..

Orderly

What makes a system orderly? Is it the imposition of order, or the imposition of legibility? Most of the previous arguments made about legibility apply equally to the question of order and disorder - except in that there is absolutely nothing disorderly about LD that is not equally or more disorderly in I&R.

By definition, LD treats democracy as a directed acyclic graph (DAG), with regard to each individual election. The layout of the edges in this graph is determined by each node, in the sense that a voter (node) can decide to delegate their vote to another voter (node).

A voter can generally only delegate their vote to one person, unless a fractional or weighted delegation system is used - something I have not seen suggested. However, a voter can have multiple votes delegated to them, either directly or indirectly through the transitivity property. Generally transitivity is assumed to be exact, although I have seen some weakly argued proposals for calculating a per-hop decay rate to

¹⁶ *Ibid.*

¹⁷ Kevin A. Carson, *Legibility & Control: Themes in the Work of James C. Scott*, Center for a Stateless Society Paper No. 12

¹⁸ James C. Scott, *Seeing Like a State*, Yale University Press, 1998.

¹⁹ I do not consider Liquid Feedback to be correctly implemented, despite its reputational status as the reference implementation of Liquid Democracy. This is due to Liquid Feedback's near absolute lack of usability, and its construction as a centralized, web-based service rather than as a peer-to-peer communications protocol.

discourage long chains.

When these properties - all of which are quite orderly - are taken together, it is easy enough to envision that any political system that has ever existed in human history is a potential *state* in the DAG: a perfect DD is where no delegation is performed, and at the other extreme, a perfect dictatorship is where all votes (and thereby all authority) is delegated to one and the same individual (although we must assume coercion or suspend our disbelief in this case).

To complete this comparison, traditional representative democracy (RD) systems effectively function through elections, by which people presume to (anonymously) delegate their votes to particular ranked lists or individuals, after which a count determines how individuals get allocated to a predefined number of seats. After the elections, these seats are presumed to have the effective decision-making capacity - or voting power - of one Nth of the total voting power, given a parliament of N votes²⁰. In terms of the DAG, it is as if all the votes were delegated to these few elected representatives in equal measure, which suggests that RD is in fact merely a highly advanced form of dictatorship.

Through all of this, it is possible to argue that there is no lack of order, although it is of course difficult to be certain of this without a specific definition of order to work from. In mathematical terms, one might argue that order is achieved through a partial ordering, in which case LD most certainly is orderly.

Fraud-proof

Election fraud is a serious problem that needs addressing more generally and outside the scope of this paper.. In general, it is considered to be of some importance that a voting system is simultaneously unlinkable²¹ and verifiable²². It is trivial to show that no currently existing election system has both of these features. The logical argument goes like this: if a voting system is unlinkable, the ballot, when cast, has no information on it which can be used to identify the voter. The set of ballots are generally not published, or else a voter could, in theory, check to see if a ballot comparable in value to the one she cast, but this would not help in the least, whereas a) there may be a multitude of equivalent ballots, and therefore no way to verify whether *hers* is amongst them unless everybody who cast such a ballot comes forward, and b) even if she were to discover a lack of her ballot, she would have no way to prove the lack of the ballot. On the other hand, if the system is truly verifiable, then a voter could, given the availability of the ballot set, check to see if her ballot were in there in an untampered state, due to some identifying mark, and use the set of ballots, combined with the balloting method, to determine if the results as published are correct. The mark could on the other hand have been registered by any number of people in the course of the voting, unless it

²⁰ With further allowances being made in the case of bicameral systems, party leadership, whips, committee membership, presidency, and other frills of representative models.

²¹ Unlinkability is the special case of anonymity where a particular item of information - in this case, a vote - cannot be linked back to an identity. For the purposes of voting, full anonymity may often be inappropriate, as in most cases there is a limited set of individuals who are granted voting rights, and therefore their identity must be established before a vote is cast, but the vote, when cast, must be divorced from the voter. This is explained in detail in my forthcoming paper, *Some Conditions for Electronic Voting*.

²² Verifiability refers to that the results of an election are independently verifiable by any party, given a certain set of information (specifically: the balloting method, social welfare function, any pseudorandom number generator seeds used, the whole set of votes, and any information that accompanies such votes). Verifiability can be broken down into several features: stability, calculability, non-falsifiability and non-coercion. These features are further fleshed out in my forthcoming paper, *Some Conditions for Electronic Voting*.

is generated by the voter in a way which is provably divorced from the voter's identity²³, at a point in time after the ballot has been provided but before the ballot is cast.

Any statement about the ability to conduct fraud in LD must be made in the context of existing systems for preventing fraud. As the argument above demonstrates, existing systems are either fraud proof, or they are unlinkable. Modern paper-based balloting methods focus primarily on unlinkability, with fraud being relatively commonplace globally in such systems, despite the best efforts of effectively powerless independent election monitors. Electronic methods, by comparison, tend to favor verifiability over anonymity, although many demonstrations have shown that in practice generally neither are concurrent in existing systems. Fraud-proofness is not, at present, an issue that makes sense in the discussion of LD - at least not as a point as to why DD is *better*.

Equivalence

This leads us to the second statement made by Nijeboer. He states in his introduction that “the attractive features of LD are already incorporated in modern DD systems in the form of initiative and referendum (I&R) as it functions today in e.g. Switzerland,” and later that “Through I&R, citizens basically have the same decision rights as politicians do, and the citizens can always have the final say if they want to.”

It is not immediately apparent which features of LD are specifically considered attractive to Nijeboer, or to other democracy enthusiasts, nor how many attractive features there are, which suggests that we can only disprove “equivalence of attractive features” through exhaustive comparison. Such a study might be entertaining, but is hindered by the complexity involved in determining exactly which features DD has, as this too varies from one implementation to another!

Instead of exhaustive enumeration, I shall present a short overview of some of the ways I see in which DD is not merely inequivalent, structurally, to LD, but that LD is vastly superior.

Granularity

Both LD and DD allow for substantially more granularity in decision making than RD, on a general voter level, as RD effectively functions as a way of moving all decision making away from the general voter to the representatives, whereas both LD and DD allow voters to retain their authority. However, there is the question of how much granularity is afforded within LD and DD, respectively.

In order to discuss this sensibly, we must first introduce a measure of “participativeness”²⁴, meaning the degree to which participation can meaningfully occur²⁵. RD explicitly limits participativeness by allowing granular participation in the selection of delegates but then strictly stating that only they may participate. DD and LD put no explicit upper limit on participation, but DD puts an implicit upper limit on participation by making the assumption that each individual must participate personally in each decision. While in theory it is possible for any number of issues to be handled simultaneously under DD, in practice each additional item

²³ Such as by the use of zero knowledge proofs. Pursuant to a conversation with Ola Bini, I have a draft mechanism for doing this, which will need to be fleshed out in a later paper - suffice for now to say that it has much in common with money laundering.

²⁴ I use the term “participativeness” rather than “participation” to highlight the distinction between actually participating and the process being open to participation. Perhaps rather than “participativeness” I should have used something different, but it was the best that came to mind.

²⁵ It would be advantageous to construct a mathematical measure for participativeness, but for now we shall simply resort to hand-waving, analogy, and where possible, exhaustive enumeration.

reduces the participativeness, by reducing the likelihood that any individual, however well informed, manages to keep abreast of all the developments in all of the issues. This tendency necessitates that there be put in place thresholds and rules, to prevent the overloading of the democratic process by denial of service²⁶.

In essence, this is a question of bandwidth: each individual only has a certain number of hours in each day²⁷ during which they need to do all the things that they intend to do. Each additional task adds to the amount of work an individual has to do to keep up. A quip often attributed to Oscar Wilde has it that “the trouble with Socialism is that it takes too many evenings.” It would seem that the same applies to DD, and even with all the evenings taken, there is still the possibility that a subgroup of society would like to add yet another item to the deliberative agenda, exhausting any reasonable person’s bandwidth. Or else, granularity can be sacrificed - larger discussions thrown together into aggregate, or limits put on how many issues can be dealt with simultaneously.

LD by comparison solves this issue by allowing participativeness by referral, at virtually any scale. Where a voter feels overburdened by a particular issue or topic, she can delegate it to a third party, thereby freeing up more mental bandwidth to focus on things that matter more to her.

Non-dictatorship of Free Cycles

The dictatorship of free cycles is the phenomenon that arises when certain people in society are so burdened with problems that they have to micromanage their solution and have no capacity to focus on more general, societal solutions, while other people have such a paucity of problems of their own that they have a lot of free time - “free cycles” - to think about solutions to perceived problems but are often isolated from the real problems existing in society, leading them to hypothesize about them without critical feedback and often arrive at absurd conclusions.

One side-effect of the granularity issue mentioned above is that LD makes the threshold for participation low enough that a particularly troubled individual, granted some situational clarity, may focus his efforts on the solution of that problem to the best of his ability on a societal level, while offloading the burden of less acute issues to collective wisdom - or to a trusted interlocutor. Conversely, this creates a pathway by which people who have “free cycles” to communicate with those who have the real problems, and work to their elimination.

The importance of this should not be underestimated. With I&R-based democratic participation schemes, any individual faced with a problem of some significance, such as a poverty related disease or a social exclusion issue, is rendered functionally incapable of taking initiative to build an Initiative (capital I) without seeking the assistance of, for instance, an aid group working in that problem space.

Selective Participation and Subsidiarity

Plato’s famous warning is worth contextualizing here: “Good men are unwilling to rule, either for money’s sake or for honour.... So they must be forced to consent under threat of penalty.... The heaviest penalty for declining to rule is to be ruled by someone inferior to yourself. That is the fear, I believe, that makes decent people accept power....”²⁸

²⁶ *Denial of Service* is a type of attack upon a system where the system is given so many trivial and tedious tasks to accomplish by some means, that any regular service provided by the system is statistically prevented.

²⁷ Roughly 24, last time anybody checked.

²⁸ Plato, *Republic*, Book 1, 347-C.

DD is, on its face, an attempt to heed this warning, but it is in itself not a solution to the problem stated within it. The unwillingness of good men to rule is not fully specified - I believe it is not true that good men are unwilling to rule their own affairs, but that it is true that good men are unwilling to rule the affairs of others. DD with I&R is merely an attempt to repurpose the centralized mechanisms of RD for the purposes of broader governance without allowing the principle of subsidiarity to run to its natural extremes. Within LD, granularity and the non-dictatorship of free cycles lend themselves to another useful attribute. In most systems of governance non-participation is punished, and those who find themselves unwilling to be ruled by others are marginalized. In this way the matters of the home are often governed by the town and the state, as are the matters of the town often governed by the state. The state in turn appears to be sovereign, except insofar as that sovereignty has been communalized amongst other states through treaties and agreements. On all levels, people are being forced to accept the cost of non-participation or to dedicate cycles - free or otherwise - to the functions of governance at whichever level they need to operate.

Most school teachers are frustrated by their lack of control over the curriculum taught in their classrooms, many doctors find themselves unable to provide the correct type of care to their patients due to regulations to the contrary or the national unavailability of certain drugs. Tradesmen, farmers, fishermen, businessmen and all the others in their society are frequently bound to behave under systems constructed by people considered operationally “above” them, who are by structural situ free-cycle dictators. For this reason we see emerging rules banning homemade olive oil in European restaurants²⁹, religious, atheist, or anti-cancer paraphernalia in schools, along with dictionaries, cupcakes, Cheetos and dancing³⁰, and why we frequently see bizarre and unreasonable ideas for regulations on all manner of human activity.

LD does not explicitly prevent this, but LD does at its core contain the suggestion that those who are subject to a problem be the ones who decide about its resolution, or rather, LD does not suggest that a specifically defined elite or established interest group work in the interest of the solution of arbitrary problems.

Selective participation is not a real possibility within I&R systems, but with LD it is almost unreasonable to not practice subsidiarity and selective participation.

Flexible Specialization

The net result of all of these features is that LD, to a far greater extent than any previously existing system of governance - up to and including DD, encourages what Michael Piore and Charles Sabel dubbed “flexible specialization”³¹, an industrial manufacturing strategy where a firm adopts non-specialized equipment and attracts polymath employees to allow for quick adjustments to rapidly changing markets. In the democratic sense, this means allowing the voters to rapidly adjust to the marketplace of ideas, using their capabilities however appropriately as they see fit. In this way, when a society is faced with a set of problems, the division of labor need not be performed in the assembly-line driven Fordian manner of designation of explicit functionaries for the solution of the problem, but rather the division can emerge through self-organization of interested - and affected - parties.

If we were to focus on one individual, the analogy to flexible specialization is inept - the individual, lacking

²⁹ Judith Levy, EU to Ban Olive Oil Jugs from Restaurant Tables, Richocet.com, 20. May 2013. <http://ricochet.com/main-feed/EU-to-Ban-Olive-Oil-Jugs-from-Restaurant-Tables>

³⁰ Grace Green, *The 17 Weirdest Things Schools have Banned*, Huffington Post, 9. August 2010. http://www.huffingtonpost.com/2010/09/08/weirdest-school-bans_n_707587.html

³¹ Piore and Sabel, *The Second Industrial Divide*, Basic Books, 1986.

specialization (or agency) in a particular field, opts out of participating in the resolution of problems arising in it. However if we look at the polity writ large, the numerous problems which arise in the polity, and the ways in which a large group of people can work together to their solution through indeed the fluid movement of multi-capable individuals with varying skill levels from one problem to the next, it seems that the analogy does hold.

While DD assumes that everybody is equipotent, a belief stemming from an overly literal interpretation of equality, it falls flat when decisions have to be made because there is no specialization and no regard for expertise - a situation that can lead to “bikeshedding”³². All people should of course be equal before the law and have the right to participate to whichever degree they see fit, but we should not thereby assume that each person is equally fit to participate in each matter. I know nothing of agriculture beyond the merest basics - I can tell a cow from a sheep, but beyond that not much else. It would be insane for me as such a person to weigh in as an equal on decisions regarding agriculture without having received substantial amounts of information about how agriculture works. Of course, if I feel I have the ability to provide value to the debate, I should, but the sensible individual should be able to exercise flexible specialization to the degree of moving her attention to matters where she is better fit and therefore strengthening the whole of the polity.

Conclusion

LD, in short, is greater than DD with I&R, for most intents and purposes. If it is the case that I&R is the best option from a simplicity perspective, the preceding pages must lead us to believe that an appropriate dose of complexity - as opposed to “complicatedness” - is better still. The worse system, LD, may derive its relative value from its ability to capture further individual intent and place fewer limitations on the ability of individuals to participate, but if that is truly worse, I for one contend that worse is better.

Nijeboer states in his paper that “I&R have proven itself as a successful model for large state democracies (not only small private organization democracies) for over a century – LD has not.”³³ The paper, while completely unsourced and apparently based on haphazard opinions rather than established fact, manages to present an interesting insight into the discussion of LD through this statement. The overbearing reason why LD has not proven itself as a successful model for large state democracies for *over a century* is that prior to 2007 it *did not exist*. In this instance, Nijeboer is indeed factually correct, if by way of a technicality.

In the six years since its original description in a now lost blog post of mine³⁴, LD has gone from being a relatively unassuming thought experiment to being a viable system for the future of democracy, if somewhat controversial.

³² Also known as Parkinson’s law of triviality; see Poul Henning-Kamp, *Why Should I Care What Color the Bikeshed Is?*, 1999; and C. Northcote Parkinson, *Parkinson's Law, and Other Studies in Administration*, 1957.

³³ AN2013

³⁴ While it is entirely possible that Liquid Democracy was invented independently by others, possibly even at an earlier date, I have found no descriptions of similar systems prior to 2007. In 2008 I spoke about the idea publicly at the FSCONS conference, and again in 2009 at the Oekonux conference. A brief description was published in *Free Beer* (Eide et al, 2009). In conversation with Friedrich Lindenberg, the author of Adhocracy, he stated his idea had come from my Oekonux speech, and that Liquid Feedback was developed in response to his software. The term Liquid Democracy is not due to me, however - it is a wonderful term that somebody in Germany invented to describe the idea, and I hereby declare that I owe said person a beer.

With this paper I believe I have shown Nijeboer to be wrong in all of the major statements made in his paper - but this should not be considered an attack or riposte leveled against him: his article instead gave rise to the opportunity to describe a number of ideas, discuss a number of issues, and clarify a number of misconceptions that surround LD, and bring them into the context of the current discussion of the future of democracy. For this I owe Arjen Nijeboer thanks, and hope that our two papers lead to a furtherance of the discussions surrounding this important topic.