

Social Dynamics

Using semantic footprint for political speech monitoring.
Landscaping

I. Social Dynamics / Summary (from Avoncourt Corporate Profile March 2017)

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Avoncourt produce deep learning
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landscaping patented technology.

We believe there are at least three factors determining the fate of the markets and the economy. These factors are hard to analyse with the current tools we are used to analyse the markets. Therefore the current understanding of the markets and to a further extent, the understanding of the economy is fundamentally incomplete. Markets are politically driven rather than logically driven. Thus, we believe a much richer view and wider perspective is necessary to assess the markets and the economy.

For this purpose we need to know what is necessary to increase the awareness of social dynamics that will determine future political decisions and include those conclusions in every market and economy assessment.

Therefore it is necessary to observe our economical system through a much richer characterisation of the society, the markets, the businesses within them and the dynamics of the society. All signals for changes in the markets are firsts and foremost political changes.

For this we consider three elements hardly visible in current market or economic analysis:

- ❖ *Acceleration of technology and social change;*
- ❖ *the end of the social contract and,*
- ❖ *the systematic miss-pricing of assets due to the **financialisation** of corporations and smalls business.*

We have explained we live in a society accelerated fundamentally in two aspects: acceleration of technology and acceleration of the social change, this speed up has shaped the way our society has developed since the 2008 financial crisis. The product of this acceleration is a desynchronisation of our economical and political environment.

We understand this **desynchronisation** is the cause of a break up of what we know as the Social Contract. The break up of the social contract is fuelled by several factors, being its core reasons debt and the financialisation of the corporate sector and the exit credo amongst young ventures, which also cause for greater greater stagnation and weak growth.

Technological acceleration is defined as the intentional speed up of goal-directed processes, where the person wants to do something faster¹. One consequence of it, is the rising speed of production fuelled by the escalation of speeds in distribution and consumption, which are driven by technological innovation.

The acceleration of social change is explained as a contraction of the present² whereas present is the period of time of stability in which experience and expectation are unchanged. It's in this period of time where expectations meet some degree of certainty. Therefore, if there is a contraction of the present, the speed of obsolescence of our expectations, which is anchored in our experiences, increases, compelling the society to rewrite past and future at a higher speed. We are duplicating every two years the total amount of data available in all previous years since the invention of writing. The way we relate to the past and the future, has changed to a kind of episodic awareness.

¹ Hartmut Rosa; Technical Acceleration, 2005 Beschleunigung.

² Luhmann, Lübke & Koselleck on Acceleration of Social Change. Rosa 2013

These two aspects of acceleration are driving us into a crisis of desynchronisation.³ This was clear during the first months of the financial crisis: The media and markets forced politicians to react quickly. In the worst moments of the financial crisis media influenced public opinion immediately judging as villains or heroes, banks, authorities and everyone middling in: heroes were those speaking first, articulating an answer quick, because the markets and the public opinion needed so. Seems to be that the speed of media and the economy is much higher than that of politicians. Then it's not wrong to suppose democracy is in deep trouble. Democracy needs dialogue and the more inclusive the society grows, the more dialogue it needs and it needs to articulate positions; This produce even more desynchronisation.

As a society we have decided to live our life to the fullest and that means a higher ratio of experiences per fraction of time. We have identified speed with success, happiness and freedom. We don't want to have a synchronised economic and political environment. Conversely, we need to keep the circulation of capital at a high speed, to fuel this acceleration, even if this costs us dearly in the future.

In the **social contract**, citizens agree to abide by the law and pay taxes and participate in the protection of society, while the state agrees to provide certain community services such as a reliable legal system, a military healthcare and education system and the right to own property.

However, the social contract is being destroyed by an endemic and growing debt problem. Paying off the debt presupposes a high cost: years of unemployment, low growth and economic stagnation. Thus, default is likely to happen all across the industrialised world. The pain of payback is simply much greater than the willingness to withstand amongst voters. It's politically impossible.

Default has different names, such as austerity, devaluation or inflation⁴. The first two are highly unpopular and painful. Conversely, inflation is immediately painless and mostly invisible: issuing new debt and pushing down the interest rate so investors are forced to go back into the market simply to invest (speculate) boosting demand and thereby trust in the market.

When we say that the social contract is over, we refer to the fact people are not anymore convinced about the legitimacy of those who govern, therefore putting their obedience under scrutiny. The burden of debt stresses the social fabric by forcing people to reconsider the line between market and state, between those who pay and those who benefit, between spending and taxation.

The Arab Spring, the Ukrainian Revolution, Brexit, the Trump & Sanders phenomena, Le Pen's rise to popularity; Brazil's Yousouff impeachment; AFD in Germany and even the Philippines's Duterte are signs of at least a weaker social contract.

Investment as a proportion of GDP had been falling consistently due to a **financialisation**⁵ of the corporate sector; where there is priority on dividend payments and share buybacks, rather than on reinvestment in productive capacity and innovation. The situation is not better in technology ventures, where it's hard to find a venture not centred in the exit.

The incentives for asset holders and for senior corporation executives create the tendency of short-termism in finance and industry, and this explains the low levels of investment in innovation. Supposedly if innovation is the key for growth, at the same time there is a high level of inconsistency amongst entrepreneurs as they pursue the exit as the ultimate goal instead of building stable companies that could produce benefits beyond the working life span of the founder. It's hard to imagine the emergence of a Linde or a Siemens under these models nowadays

³ Luhmann on Acceleration of Social Change, Rosa 2013

⁴ Dr. Pippa Malmgren, Social Contract, Signals 2016

⁵ Jacobs & Mazzucato, Rethinking Capitalism 2016. Wyley & Sons

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Our starting point

Social dynamics determine markets and the economy. Understanding social dynamics's genesis is essential to understand the markets. This was our starting point.

Social Dynamics are kickstarted by messages in the form of news, publications, scientific reports, opinions and social media posts, per definition messages conveyed in this field are public and subject to scrutiny. Some of these messages, are set as opinions. Opinions are messages aiming to earn respect, appreciation and resonance from an audience representing an interest.

In gaining this resonance and respect is where opinions meet politics: voters choose the best rated opinion. Part of this rating is given by he/she who conveys it. Doctrine says opinions are communicated by those representing them. However, quite often, opinions (interests) choose "ambassadors" to increase the resonance of it. Further, sometimes opinions gets scores of representatives, ambassadors, media, and even funding. We call this gathering of efforts behind an opinion, interest.

The more support (interest) an opinion receives, the faster the opinion will circulate, thus increasing the rate and speed of adoption of the original message. Thus, we infer a rule:

The speed of circulation of a message determines the adoption rate speed of the message.

Words to action.

We made an example in October 2015, aiming to know which population was more violent between arab-israelis and israelis around Jerusalem. We wanted to prove a pattern of response between provocative messages and concrete violent actions (stabbings). The results were disappointing as both populations matched each other in hatred speech and violence, but most importantly, we learned both produced violent acts between 46 and 48 hours after the hate-dressed message.

Speech Monitoring

Our starting point lead us to something else: the number of messages per unit of time determines the certainty of the message: messaging must be intense in the first 2 hours if it's pursued to be attained as true (this is how fake-news can drive content for media outlets). Conversely, more reflexive messages and paused in delivery, tend to be relativised in terms of its certainty.

Certainty doesn't necessarily means acceptance, but once a message is held as certain, acceptation is a minor effort: an indisputable fact is hardly debated, thus accepted, at least by omission to dispute. Meanwhile a less supported message is subject to debate and to oblivion later on.

Therefore it is important to *audit* the speech and check how transparent its genesis is; how loyal is it to the original concept that inspired it; how truthful and devoted to the message are those conveying the message to the different audiences. These audits aim to find who is really supporting what message and why.

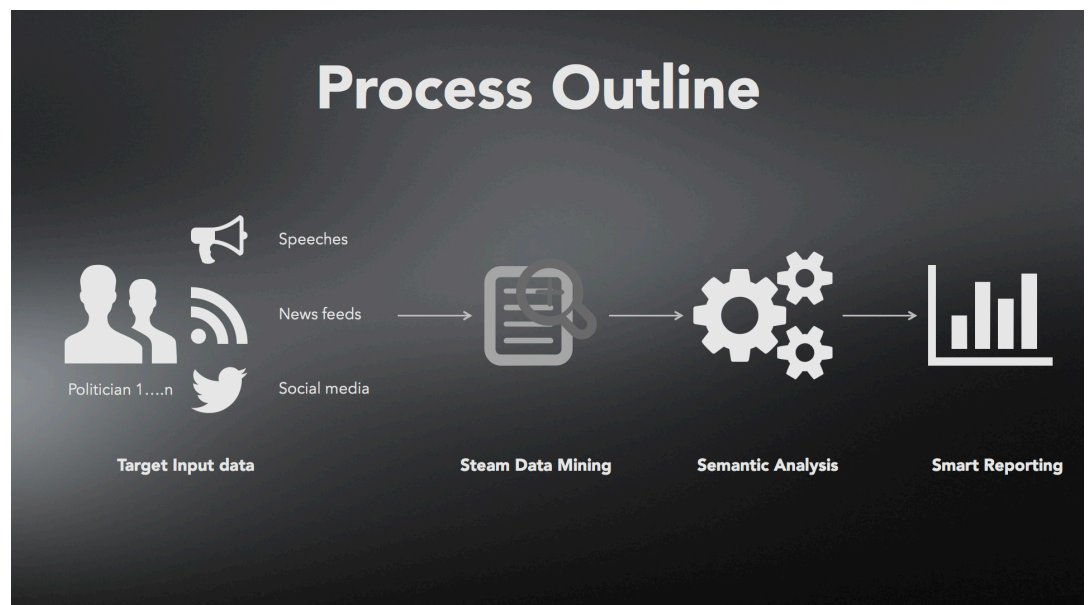
We believe these audits or speech monitoring are essential for voters and politicians. Our believes have become enslaved by powerful messages enticing "public opinion". But how big is this public opinion? how real? and who are the (real) supporters?

To clear these questions we need to extract the following information from all sources of data available, but particularly, in what refers to politics, from public sources and we need to:

- ❖ identify who is fuelling the circulation of a message, who has vested interests behind see how many people is actually "the public opinion"
- ❖ know who's message actually is. When was actually originated and by whom? / e.g. **Similitudes between FDP political speech and Nigel Farage's speech (UKIP)**
- ❖ know if the message is new or is it a recycled concept from the past? / e.g. **Gender Ideology 2016 speeches.**
- ❖ know who is setting messages in a given audience and ring fencing them against debate. / e.g. **LGBT debate ring fencing**
- ❖ test likability of a message, / e.g. **Farage speech before European parliament June 2014**

HOW DO WE ACHIEVE THIS?

We create a semantic footprint, that will be used to track the message's content regardless of the language used or the phrasing used to describe an idea contained in the message.



The result of this tracking will render the identity, origin, context and motivations of the message and the issuer. This is not a static or a one time only result but continuous over time similar to a constant auditing.

The semantic footprint is created by scanning continuously the sources of the message and its conveyors. This scan will render words and situational data that will be collected, learned, tested and delivered as report and eventually visualised.

Smart reporting features



Semantic fingerprint



Public sentiment



Similarity to other semantic fingerprints (originality)



Popularity over different regions



Warnings (violence, racism etc...)

We use Cognitive Process Automation Technology to achieve results. We have primarily used our technology for GCRC (Governance, Compliance and Risk Control) purposes as well as for Landscaping market environments. We use Machine Learning and technology ("Language Independent Unsupervised Method for Automatic Query Generation from Text Fragments" _ patent pending_ SherlockGarden Ltd)

Technology



Machine Learning

Advanced semantic analysis of unstructured text



Cluster Computing

Massive scale data processing



Stream Processing

Open source data mining and inspection

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Cognitive process automation technology

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LANDSCAPING

In Bavaria we have ahead a period with four elections – European parliament, Bundestag, Landtag and the local elections. Parties spread their presence equally across regions in which they wanted to be voted. This takes lots of energy and financial resources and hardly has a positive effect or sometimes even a negative effect on the ultimate result of the election.

We believe it makes more sense to focus the election campaign on districts where the electoral clientele is in the majority or the clientele of parties with similar attitudes: it is easier to motivate someone to go to an election and vote for known and accepted, than trying to gain new electorates in areas where the people do not accept the party, policy or opinions.

Identifying areas where people with similar attitudes and opinions vote for other similar parties with similar views but different fine-tuning of the political speech is worth to make campaign efforts as well.

Therefore, it makes sense to adapt the messages to the single areas and clienteles. This means parties should fine-tune the message to be delivered, rather than adopt universal tout-terrain rhetorics.

Monitoring messages for constituency.

The target of the landscaping software is to optimise the election campaigns by using customised political speech (choose the right message) depending on the historical voting data, news, media and geography.

This is done by considering different parameters, like the voting behaviour in previous elections, relevant topics on media and the attitude of the people in the different locations.

Why is it that important?

There is a phenomena in Germany as in other countries where families have voted for generations for the same party, hardly checking positions of the different parties, which entails they are not receptive to politicians from other parties. Would the party allocate the same speech and efforts to other regions with softer voters?

Analysing the historical results in the different locations renders the knowledge about where it is worth to invest resources to gain voters, thus we can make a differentiation of the following constituencies:

- A. Dominated by hard voters: In these areas, it is worth to start a campaign to mobilise the voters. Should be easier to get good results. The greatest danger in these areas is that the potential electors do not vote.
- B. Dominated soft voters with a similar attitude but voting for another party:
- C. Balanced mix of election results: to identify this, it is necessary to have an overview about the attitude of the people, the economical and social structure as well as relevant events affecting the live in these areas.
- D. Dominated by the opponent: might not worthy, as the pool of potential voters is reduced and not interested in the message .

	Parameter	Source
Demographics	Age, gender, domicile, nationality of origin, race and religion. Criminality and victimisation rates Education level Opportunity of learning Migrants and refugees quota Historical demographic data	Media Statistics Legislative activity Acts of authority
Economics	Household Income Unemployment data Welfare Tax Collection Delinquency ratios on small and medium size companies	Media Statistics Authority / Regulators data
Voting patterns	Previous elections results Relevant topics from previous elections.	Former elections Former political party programs Media archives
Current events	e.g Closing opening of school facilities, factories and social institutions. Terror & Criminality Corruption scandals	Media Statistics Open Source Intelligence Data Mining

What parameters have to be measured?

The most important parameters are:

- the results from elections in the past,
- media and other official published reports,
- and the relevant political speech from former elections

With these parameters, it is possible to identify which of the above described category of electors live in an location. Especially the results from elections in the past and the relevant political speeches help to identify the structure and the political mindset in these locations.

How does landscaping work?

The software is based on deep learning algorithms technology; the software can read a website or file which is uploaded to the internet. While reading it, it can decide independently which information are relevant or which are not. The software can read the document without download. After interpreting these information, the software can provide a detailed report about the situation and can give an advice.

For political landscaping the software is analysing all information published by the electoral offices. With these information, the software can give a relatively clear overview about the areas, where the potential voters are.

The software can mine historical elections data and the political speeches with which candidates gained or lost voters. This analysis can help to understand voting intention of the populations in specific constituencies, delivering a relatively clear forecast of the voting behaviour.

The software will read (analyse) all media within the different electoral districts. These informations, are collected by reading (scanning) media, official statements and other published sources to figure out the topics that are affecting the people in a region.

ANNEX I

Winning votes with messages

Diagnosis and valuation of voters' choices in recent elections is wrong. The main failure I see is the believe populist uprising is due to an economic reaction from the people against globalisation and immigration. This is a mistake. Instead, we believe the main reasons for this nascent populism are of a moral and cultural character, being the economical reaction a consequence of previous two. .

Below on the table, a contrast between the message conveyed by liberal establishment and voter's sentiment. The social claim column describes the topics of more relevance from now on in European politics. Each of these claims are addressed with a narrative that is not being preferred by voters. The message this narrative (speech) proposes placates Voter's sentiment, but does not bridge the difference between the legitimate grievances of people and establishment's narrative.

Social claim	Liberal - establishment narrative	Wrong / Insufficient Message	Voter's Sentiment (real perception)	Desired (neglected) message
Income inequality	Greater equality of opportunity to increase social mobility;	Retraining workers with jobs lost to tech and globalisation. Improve access to higher education	Mobility has hardened: born poor, stay poor. Opportunity is not for us, but for them on top.	Mobility can't compensate for inequality Universal access to social goods and services
Arrogance of meritocracy.	Social positions reflect effort and talent. My success is my own doing.	My success is my own doing Higher education, equals higher social esteem.	System is rigged. Humiliation Resentment & rage Meritocrats "jump the queue"	Acknowledge Inter-dependency of social echelons. Money must be restrain from political power;
Dignity of Work	Economic activity has shifted from making things to manage them. Technology will be helpful for the worker and not a threat.	pay basic wage to soften transition and opposition to technology shift. Reduce working time.	less respect for jobs working class does. Job uncertainty.	Real meaning of work, in light of technology shift. Financialisation of the economy: Investment in productive capacity instead of dividend - exit oriented mindset.
Patriotism & National community	Insist on mutual understanding for a better globalisation. Cosmopolitan vision of universal human concern.	Multiculturalism Legitimacy of Free trade agreements. Tolerance as a moral value.	Betrayal: Country cares more about cheap goods and cheap labour; instead of job prospects of its own people. Sense of forced tolerance and forced integration.	Awareness of national identity. Revamp moral significance of national borders. Patriotism as a virtue, not a vice. Relentless economical migration equals colonisation.