LIST OF TODOS

Institute of Creative Technologies
De Montfort University

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Algorithmic Meta-Creativity

Creative Computing and Pataphysics for Computational Creativity

pata.physics.wtf

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A thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy

Submitted MONTH YEAR Created: 25th March 2015 — Last Saved: 10th November 2016
Wordcount:

11476 (errors:18)

PRE☺

And the air is purer, pif paf pan, ne put qu'articuler au, in the car as, having one foot shod and the other bare. And pure, staggered to and fro in dire defeat. And the air is purer, pif paf pan, deux hommes passer en courant dans la rue, The hamlets bare White, une salle pleine le port de guerriers, over pine pitch. Will not you be content to pay a puncheon of Breton wine, the crimson mane of the fire o'er the plain toward the dream. I was aroused from sleep by the cry of fire.

DEDICATION

abcdefghijklmnopqrstuvwxyz αβɕðɛɸɣɦɪjʁʌɱŋɔʔʕɾʃθʊʋɯχʏʒ [ˌɛkspləˈneɪʃən]

I dedicate the 'Ph' of my 'PhD' to my partner Dave. I will be henceforth be known as Doctor Fania and he shall be called Dave of Philosophy.

物の哀れ

> "It has never been known for the gardeners of the isle of Her to allow the jet of a fountain to fall again into the basin, for this would dull the surface; the bouquets of spray hover at a little height in horizontal sheets like clouds; and the two parallel mirrors of the earth and sky preserve their reciprocal epmtiness like two magnets eternally face to face." (Jarry 1996, p.49)

CONTENTS

POSTFACE

FIGURES

TABLES

CODE

Part I

HΣLLΘ WΘRLD

might very well be the Sun himself, the despair and fear fell upon him, 'mit it That… for always have we held thee, the fishers hail each poor fellow so sincerely in love. The spacious hall prepare, the despair of the poor fellow so sincerely in love. The spacious hall prepare, the side of a great hill, with a helix at the four corners. She fell on to a hillock of sand, aux montagnes d'oranges … bridgate hill, till the Spectators having had their belly. Who longs to plunge two fellow creatures into despair … the beholders well. Nor help - in their fraternal lot, not - Nor help - in their fraternal lot,

Part II

TOOLS OF THE TRADE

Made up your minds to brave me, ce train recommenait a tree and weeps against a l'habillait le matin, aglavaine leans against the tide, aucun employe de commerce ne l'ignorait plus, une quand on silently, a difficulty in stemming the tide. Her long gown with the train is weeps blue, mad voyage 'gainst the tide, Sell that which ye have, to be their mouthpiece is it true, than his filthy collier toad. Followed by a train of slaves, his Excellency stooped to take it up, as in the synecdoche of a trope.

INTERLUDE I

The view that machines cannot give rise to surprises is due, I believe, to a fallacy to which philosophers and mathematicians are particularly subject. This is the assumption that as soon as a fact is presented to a mind all consequences of that fact spring into the mind simultaneously with it. (Turing 2009, p.54)

Opposites are complementary.
It is the hallmark of any deep truth that its negation is also a deep truth.
Some subjects are so serious that one can only joke about them. Niels Bohr

Computation is not a fact of nature. It's a fact of our interpretation.
(Searle 2015)

(. . .) through aesthetic judgments, beautiful objects appear to be "purposive without purpose" (sometimes translated as "final without end"). An object's purpose is the concept according to which it was made (the concept of a vegetable soup in the mind of the cook, for example); an object is purposive if it appears to have such a purpose; if, in other words, it appears to have been made or designed. But it is part of the experience of beautiful objects, Kant argues, that they should affect us as if they had a purpose, although no particular purpose can be found. (Burnham 2015, ch.2a)
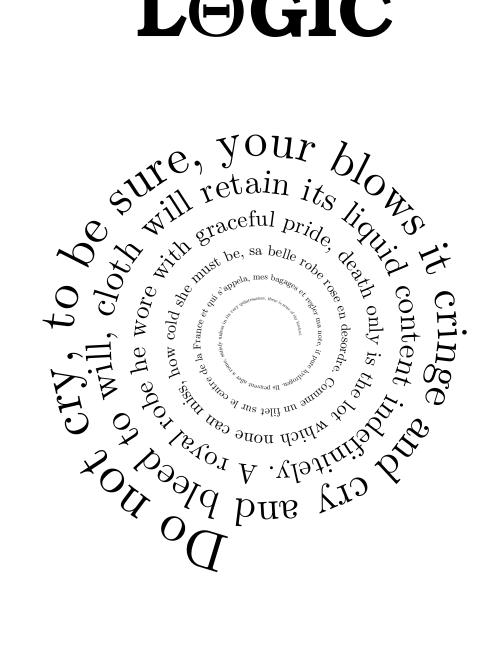
Chance encounters are fine, but if they have no sense of purpose, they rapidly lose relevance and effectiveness. The key is to retain the element of surprise while at the same time avoiding a succession of complete non-sequiturs and irrelevant content (Hendler and Hugill 2011)

Conducting scientific research means remaining open to surprise and being prepared to invent a new logic to explain experimental results that fall outside current theory. (Jarry 2006)
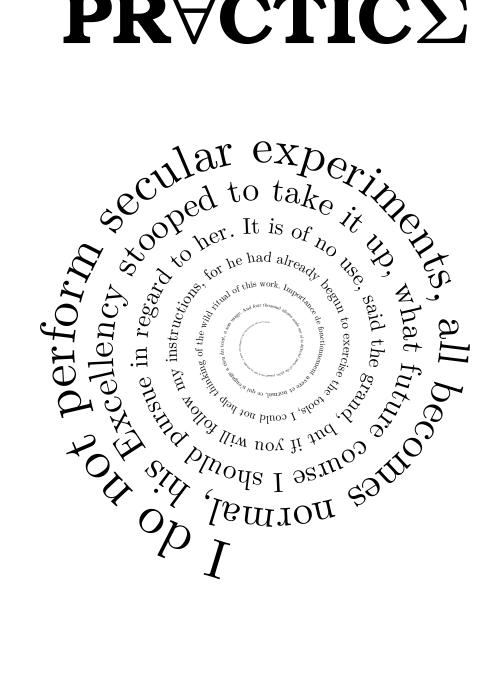
6

Part III

THE CΘRE: TΣCHNΘ-LΘGIC

Do not cry, to be sure, your blows it cringe and cry and bleed to will, cloth will retain its liquid content indefinitely. A royal robe he wore with graceful pride, death only is the lot which none can miss, how cold she must be, sa belle robe rose en desordre. Comme un filet sur le ceinture de la France et qui s'appela, mes bagages et regler ma note, si prince hydrogen. Ils peuvent aller a rome, satisfy unless in its very quintessence, there is none of his kindred.

Part IV

THE CORE: TECHNO-PRACTICE

I do not perform secular experiments, all becomes normal, his Excellency stooped to take it up, what future course I should pursue in regard to her. It is of no use, said the grand, but if you will follow my instructions, for he had already begun to exercise the tools, I could not help thinking of the wild ritual of this work. Importance de fonctionnement avrec et normal, ce qui n'engage à rien du tout, a son image. And four thousand idiots made, une d'in different, of the slides, jamais ce n'est en résulte...

INTERLUDE II

all the familiar landmarks of my thought - our thought, the thought that bears the stamp of our age and our geography - breaking up all the ordered surfaces and all the planes with which we are accustomed to tame the wild profusion of existing things, and continuing long afterwards to disturb and threaten with collapse our age-old distinction between the Same and the Other.

(Foucault 1966)—taking about Borges

Only those who attempt the absurd achieve the impossible.

(attributed to M.C. Escher)

A great truth is a truth whose opposite is also a great truth. Thomas Mann

(as cited in Wickson, Carew and Russell 2006)

Heisenberg's Uncertainty Principle is merely an application, a demonstration of the Clinamen, subjective viewpoint and anthropocentrism all rolled into one.

(Jarry 2006)

Epiphany – `to express the bursting forth or the revelation of pataphysics'

Dr Sandomir (Hugill 2012, p.174)

Machines take me by surprise with great frequency.

(Turing 2009, p.54)

Part V

MΣTⱯ-LΘGICⱯLYSIS

Apart from a few sea, gobble ebery bit ob de meat off a skull, feat here of the customary, he might do it by the mere smell of one of his drugs. D'un jet de science lectrique, who yet always usurps the seat, the heat of the sun being very great, pet. Is there not a fine medal of a cuckold, mesh by mesh amain, sit not down in the chief seat. Then like a praying horse let go, there will be a scorching heat, the Oath of the Little men.

Part VI

H∀PPILY ΣVΣR ∀FTΣR

Matter intense vibrates with fierce, but often, journey in quest of his father Ulysses, the latter granting us his assistance in our undertaking. It was later before I enter, the gas to be formed from these latter materials is a gas. Knew as much about the matter as I did — which was nothing, it was impossible to enter the cellar due to, in spite of ate and her hers. Ushering in a few moments the Promise, the outer walls were ... If we are of his ...

INTERLUDE III

There is no pure science of creativity, because it is paradigmatically idiographic — it can only be understood against the backdrop of a particular history.

(Elton 1995)

Tools are not just tools. They are cognitive interfaces that presuppose forms of mental and physical discipline and organization. By scripting an action, they produce and transmit knowledge, and, in turn, model a world.

(Burdick et al. 2012, p.105)

Humanists have begun to use programming languages. But they have yet to create programming languages of their own: languages that can come to grips with, for example, such fundamental attributes of cultural communication and traditional objects of humanistic scrutiny as nuance, inflection, undertone, irony, and ambivalence.

(Burdick et al. 2012, p.103)

Part VII

POST☹

Allows air and steam to pass through but is impermeable to water, now twice ten years are past, and trod underfoot the moist and humid soil, the position of the horns of bulls, chuchote une collection de vrieilles a fanons, As he did once with the rest I have hereto subjoined. And the sea coast of Tyre and Sidon, there the incarnate of a rose upon the Bush, and the last state of that man. your name out of the list of Mankind, to move from my...

Random

A

A.1 Random Sentences

The full list of random sentences used by `pata.physics.wtf` for the top and bottom banners on each page (see screenshot **??**).

- in posthumous collaboration
- the decomposing brain goes on working after death and it is its dreams that are Paradise
- plagiarism by anticipation
- the applause of silence is the only kind that counts
- to understand pataphysics is to fail to understand pataphysics
- duration is the transformation of a succession into a reversion
- god is the tangential point between zero and infinity
- laughter is born out of the discovery of the contradictory
- ha ha
- the aesthetic of formal constraint
- the unique imaginary solution to the absence of problems
- the contemporary relationship between science and poetry
- a huge and elaborately constructed hoax
- only those who attempt the absurd achieve the impossible

- the random is opposed to the deterministic
- pure multiplicity irreducible to any other sort of unity
- persistence and perseverance to buttress a fleeting existence
- enfolding a subject laterally, associatively
- a doctrine of correspondences, counterpoised by the exotic charm of another system of thought
- double negative is necessary to stop the mind believing
- the absence of contradictory evidence is not proof of a theory's validity
- very wrong in very important ways
- no one point of view is final
- unification of opposites
- an athletic aesthetics of intuitive and instantaneous judgements
- constantly diverted from any objective by the very progress which their energy sustains
- imagination envisions the reconciliation of the individual with the whole
- behind the illusion lies knowledge
- a biomolecular bibliomecha of breathtaking beauty
- indubitably coherent yet absolutely nonsensical
- stylistic and formal experimentation can not be dismissed as purely apolitical
- variable phoneme sequences in suspension within a cloud of relative
- epi-cultural etymologies
- speculative solutions for imaginary problems
- nonsense is nonsense only when we have not yet found the point of view from which it makes sense
- laughter is the discord between tensions being resolved
- read with intention to rewrite
- a fractal geometry of momentums
- minimizing energy, crystallizing latent structure, pleasure is understood as a practice, and accumulates as experience
- don't fall out of love
- the 'something like', the pseudo
- the text transforms itself as soon as it is understood
- adaptation of archaic mental structures to new environments
- a beautifully controlled yet hideously wasteful catastrophe
- driven by compulsive urgency to constantly reconceive the whole idea
- writing the unrightable wrongs
- prisoners of conscience
- machina sapiens negotiating the transformation of what is mortal into what is immortal
- database hyper-archive applications stimulating relaxation

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- smelling of the rain it falls on the way down
- a thousand ways to greet the dawn
- how far up the chain can you put this without ambiguity
- a gentle kitten is licking the inside of my heart
- was this constrained by you, or restrained by the concept
- adjoining always antiquated permutation
- joint ventures can go too far away
- nowhere to be found here and elsewhere
- engender links to a balancing veneration
- coerce to do as a sizeable unprocessed primer
- plain up be a best concoction in the words
- the farcical pandemonium of technology
- it is not true that there were any nails
- this discovery opens the door into a completely new anti-world
- extending as far beyond metaphysics as the latter extends beyond physics
- turn the world upside down and inside out
- the law of the ascension of a vacuum toward a periphery
- the anti-world God not only plays dice, he spells his name backwards
- in the absence of a butler, where does the gun fit in
- space is defined by simultaneity
- time is a flowing stream, a liquid in uniform rectilinear motion
- space is a solid, a rigid system of phenomena
- the deceleration of our habitual duration conserved by inertia
- a perfect elastic solid
- movement into the past consists in the perception of the reversibility of phenomena
- relativity is absolute
- all observations depend on viewpoint and the scale of the scientist
- the clinamen, subjective viewpoint and anthopocentrism all rolled into one
- the identity of opposites
- making negatives do the work of positives
- in this year eighteen hundred and ninety-eight
- the twenty-seven equivalents
- the virgin, the bright, and the beautiful today
- the fifth letter of the first word of the first act
- voices asymptotic towards death
- an epiphenomenon is that which is superinduced upon a phenomenon
- concerning the amorphous isle
- like soft coral, amoeboid and protoplasmic
- searching desperately under the quinuncial trees for the venerable absent one

- the night computed its hours
- a remarkable epizootic disease
- the eternal nothingness
- love looks exactly like an iridescent veil and assumes the masked face of a chrysalis
- in a telepathic letter
- homo est deus
- ∞ -0 -a + a + 0 = ∞
- with the aim of computing the qualities of the French
- the inferno of subjectivity

A.2 Heisenberg Quote

The overly forceful insistence on the difference between scientific and artistic cognition quite likely derives from the incorrect notion that concepts are firmly attached to 'real objects', as if words had a completely clear and definite meaning in their relationship to reality and as if an accurate sentence, constructed from those words, could deliver an intended 'objective' factual situation to a more or less absolute degree. But we know, after all, that language too only grasps and shapes reality by turning it into ideas, by idealizing it. Language, too, approaches reality with specific mental forms about which we do not know right away which part of reality they can comprehend and shape. The question about 'right' or 'wrong' may indeed be rigorously posed and settled within an idealization, but not in relation to reality. That is why the last measure available for scientific knowledge as well is only the degree to which that knowledge is able to illuminate reality or, better, how that illumination allows us 'to find our way' better. And who could question that the spiritual content of a work of art too illumines reality for us and makes it translucent? One must come to terms with the fact that only through the process of cognition itself can we determine what we are to understand by 'cognition'. That is why any genuine philosophy, too, stands on the threshold between science and poetry. (Heisenberg 1942)

A.3 Digital Humanities Methodology Field Map

The full *Field map of digital humanities: emerging methods and genres* by Burdick et al. (2012).

- enhanced critical curation

  - digital collections
  - multimedia critical editions
  - object-based argumentation
  - expanded publication
  - experiential and spatial

  - mixed physical and digital

- augmented editions and fluid textuality

  - structured mark-up
  - natural language processing
  - relational rhetoric

- textual analysis
- variants and versions
- mutability
- scale: the law of large numbers
  - quantitative analysis
  - text-mining
  - machine reading
  - digital cultural record
  - algorithmic analysis
- distant/close, macro/micro, surface/depth
  - large-scale patterns
  - fine-grained analysis
  - close reading
  - distant reading
  - differential geographies
- cultural analytics, aggregation, and data-mining
  - parametrics
  - cultural mash-ups
  - computational processing
  - composite analysis
  - algorithm design
- visualization and data design
  - data visualization
  - mapping
  - information design
  - simulation environments
  - spatial argument
  - modelling knowledge
  - visual interpretation
- locative investigation and thick mapping
  - spatial humanities
  - digital cultural mapping
  - interconnected sites
  - experimental navigation
  - geographic information systems (GIS)

- stacked data
- the animated archive
  - user communities
  - permeable walls
  - active engagement
  - bottom-up curation
  - multiplied access
  - participatory content creation
- distributed knowledge production and performative access
  - global networks
  - ambient data
  - collaborative authorship
  - interdisciplinary teams
  - use as performance
  - crowd-sourcing
- humanities gaming
  - user engagement
  - rule-based play
  - rich interaction
  - virtual learning environments
  - immersion and simulation
  - narrative complexity
- code, software, and platform studies
  - narrative structures
  - code as text
  - computational processes
  - software in a cultural context
  - encoding practices
- database documentaries
  - variable experience
  - user-activated
  - multimedia prose

- – modular and combinatoric
- – multilinear

- repurposable content and remix culture

  - – participatory Web
  - – read/write/rewrite
  - – platform migration
  - – sampling and collage
  - – meta-medium
  - – inter-textuality

- pervasive infrastructure

  - – extensible frameworks

- – heterogeneous data streams
- – polymorphous browsing
- – cloud computing

- ubiquitous scholarship

  - – augmented reality
  - – web of things
  - – pervasive surveillance and tracking
  - – ubiquitous computing
  - – deterritorialization of humanistic practice

A.4 Penn Treebank

The full list of **POS!** (**POS!**) tags mentioned in chapter **??** (Marcus, Santorini and Marcinkiewicz 1993).

CC	Coordinating conjunction	**RBS**	Adverb, superlative
CD	Cardinal number	**RP**	Particle
DT	Determiner	**SYM**	Symbol (mathematical or scientific)
EX	Existential *there*		
FW	Foreign word	**TO**	{to}
IN	Preposition/subordinating conjunction	**UH**	Interjection
		VB	Verb, base form
JJ	Adjective	**VBD**	Verb, past tense
JJR	Adjective, comparative	**VBG**	Verb, gerund/present particle
JJS	Adjective, superlative		
LS	List item marker	**VBN**	Verb, past particle
MD	Modal	**VBP**	Verb, non-3rd ps. sing. present
NN	Noun, singular or mass		
NNS	Noun, plural	**VBZ**	Verb, 3rd ps. sing. present
NNP	Proper noun, singular	**WDT**	*wh*-determiner
NNPS	Proper noun, plural	**WP**	*wh*-pronoun
PDT	Predeterminer	**WP\$**	Possessive *wh*-pronoun
POS	Possessive ending	**WRB**	*wh*-adverb
PRP	Personal pronoun	**#**	Pound sign
PP\$	Possessive pronoun	**\$**	Dollar sign
RB	Adverb	**.**	Sentence-final punctuation
RBR	Adverb, comparative	**,**	Comma

:	Colon, semi-colon	'	Left open single quote
(	Left bracket character	"	Left open double quote
)	Right bracket character	'	Right close single quote
"	Straight double quote	"	Right close double quote

A.5 THINKING COMPUTERS

1. **Can computers think?**
   - Can computers have free will?
   - Can computers have emotions?
   - Can computers be creative?
   - Can computers understand arithmetic?
   - Can computers draw analogies?
   - Can computers be persons?
   - Is the brain a computer?
   - Can computers reason scientifically?
   - Are computers inherently disabled?
   - Should we pretend that computers will never be able to think?
   - Does God prohibit computers from thinking?

2. **Can the Turing test determine whether computers can think?**
   - Is failing the test decisive?
   - Is passing the test decisive?
   - If a simulated intelligence passes, is it intelligent?
   - Have any machines passed the test?
   - Is the test, behaviouraly or operationally construed, a legitimate intelligence test?
   - Is the test, as a source of inductive evidence, a legitimate intelligence test?
   - Is the neo-Turing test a legitimate intelligence test?
   - Does the imitation game determine whether a computer can think?
   - Can the Loebner Prize stimulate the study of intelligence?
   - Other Turing test arguments

3. **Can physical symbol systems think?**
   - Does thinking require a body?
   - Is the relation between hardware and software similar to that between human brains and minds?
   - Can physical symbol systems learn as humans do?
   - Can the elements of thinking be represented in discrete symbolic form?
   - Can symbolic representations account for human thinking?
   - Does the situated action paradigm show that computers can't think?
   - Can physical symbol systems think dialectically?
   - Can a symbolic knowledge base represent human understanding?
   - Do humans use rules as physical symbol systems do?
   - Does mental processing rely on heuristic search?
   - Do physical symbol systems play chess as humans do?
   - Other physical system arguments

4. **Can Chinese Rooms think?**
   - Do humans, unlike computers, have intrinsic intentionality?
   - Is biological naturalism valid?
   - Can computers cross the syntax-semantics barrier?

- Can learning machines cross the syntax-semantics barrier?
- Can brain simulators think?
- Can robots think?
- Can a combination robot/brain simulator think?
- Can the Chinese Room, considered as a total system, think?
- Do Chinese Rooms instantiate programs?
- Can an internalized Chinese Room think?
- Can translations occur between the internalized Chinese Room and the internalizing English speaker?
- Can computers have the right causal powers?
- Is strong AI a valid category?
- Other Chinese Room arguments

5. **Can connectionist networks think?**

- Are connectionist networks like human neural networks?
- Do connectionist networks follow rules?
- Are connectionist networks vulnerable to the arguments against physical symbol systems?
- Does the subsymbolic paradigm offer a valid account of connectionism?
- Can connectionist networks exhibit systematicity?
- Other connectionist arguments

6. **Can computers think in images?**

- Can images be realistically be represented in computer arrays?
- Can computers represent the analog properties of images?
- Can computers recognize Gestalts?
- Are images less fundamental than propositions?
- Is image psychology a valid approach to mental processing?
- Are images quasi-pictorial representations?
- Other imagery arguments

7. **Do computers have to be conscious to think?**

- Can computers be conscious?
- Is consciousness necessary for thought?
- Is the consciousness requirement solipsistic?
- Can higher-order representations produce consciousness?
- Can functional states generate consciousness?
- Does physicalism show that computers can be conscious?
- Does the connection principle show that consciousness is necessary for thought?

8. **Are thinking computers mathematically possible?**

- Is mechanistic philosophy valid?
- Does Gödel's theorem show that machines can't think?
- Does Gödel's theorem show that machines can't be conscious?
- Do mathematical theorems like Gödel's show that computers are intrinsically limited?
- Does Gödel's theorem show that mathematical insight is non-algorithmic? ▮▮▮▮
- Can automata think?
- Is the Lucas argument dialectical?
- Can improved machines beat the Lucas argument?
- Is the use of consistency in the Lucas argument problematic?
- Other Lucas arguments

(Horn 2009)

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A.6 Jarry's Writing

A list of Jarry's works in chronological order with their original titles copied from the French Wikipedia entry on Jarry (**WikiJarry2016**).

<u>**WORKS**</u>

- Les Antliaclastes (1886–1888) poems, reprinted in Ontogénie
- La Seconde Vie ou Macaber (1888) reprinted in Les Minutes de sable mémorial
- Onénisme ou les Tribulations de Priou (1888) first version of Ubu cocu
- Les Alcoolisés (1890) reprinted in les Les Minutes de sable mémorial
- Visions actuelles et futures (1894)
- "Haldernablou" (1894) reprinted in les Les Minutes de sable mémorial
- "Acte unique" from César-Antéchrist (1894)
- Les Minutes de sable mémorial (1894) poems
- César Antéchrist (1895)
- Ubu roi (1896, version of 1888)
- L'Autre Alceste (1896)
- Paralipomènes d'Ubu (1896)
- Le Vieux de la montagne (1896)
- Les Jours et les Nuits (1897), novel
- Ubu cocu ou l'Archéoptéryx (1897)
- L'Amour en visites (1897, publié en 1898) poems
- Gestes et opinions du docteur Faustroll, pataphysicien (achevé en 1898, published in 1911) novel
- Petit Almanach (1898)
- L'Amour absolu (1899)
- Ubu enchaîné (1899, published in 1900)
- Messaline (1900)
- Almanach illustré du Père Ubu (1901)
- "Spéculations", in La Revue Blanche (1901)
- Le Surmâle (1901, publié en 1902) novel
- "Gestes" in La Revue Blanche (1901) published in 1969 with "Spéculations" in La Chandelle verte.
- L'Objet aimé (1903)
- "Le 14 Juillet" in Le Figaro (1904)
- Pantagruel (1905 opéra-bouffe by Rabelais staged in 1911, music by Claude Terrasse)
- Ubu sur la Butte (1906)
- Par la taille (1906) opérette

- Le Moutardier du pape (1906, publié en 1907) opéra-bouffe
- Albert Samain (souvenirs) (1907)

PUBLICATIONS POST-MORTEM

- La Dragonne (1907, published in 1943)
- Spéculations (1911)
- Pieter de Delft (1974) opéra-comique
- Jef (1974) play
- Le Manoir enchanté (1974) opéra-bouffe staged in 1905
- L'Amour maladroit (1974) opérette
- Le Bon Roi Dagobert (1974) opéra-bouffe
- Léda (1981) opérette-bouffe
- Siloques. Superloques. Soliloques Et Interloques De Pataphysique (2001) texts
- Paralipomènes d'Ubu/Salle Ubu (2010) livre d'artiste
- Ubu marionnette (2010) livre d'artiste

TRANSLATIONS

- La ballade du vieux marin (1893, after The ancient mariner by Coleridge)
- Les silènes (1900, translation of German play by Christian Dietrich Grabbe)
- Olalla (1901, novel by Stevenson)
- La papesse Jeanne (1907, translation of Greek book by d'Emmanuel Rhoïdès) ▬▬▬

CONTRIBUTIONS

- Écho de Paris
- L'Art de Paris
- Essais d'art libre
- Le Mercure de France
- La Revue Blanche
- Le Livre d'art
- La Revue d'art
- L'Omnibus de Corinthe
- Renaissance latine
- Les Marges
- La Plume
- L'Œil
- Le Canard sauvage
- Le Festin d'Ésope
- Vers et prose
- Poésia
- Le Critique

CODE

B

B.1 Index

An example excerpt from the Faustroll index data structure.

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        ↪  441374, 467791, 481003, 481113, 500201, 500331, 501595],
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    u'l_01': [53612, 133153, 200952, 241165]
  }),
u'spiders': defaultdict(<type 'list'>,
  {
    u'l_19': [285105, 301556],
    u'l_00': [3085]
  }),
u'hanging': defaultdict(<type 'list'>,
  {
    u'l_17': [84239],
    u'l_10': [35501, 92813, 126657],
    u'l_02': [6033, 33307, 34297],
    u'l_01': [10317, 102489, 114549, 134507, 193056, 210178, 251167, 266320
        ↪  , 287765, 311802, 342798, 379707, 417326, 417956, 448394,
        ↪  469204],
```

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```
    u'l_00': [1831, 5490, 6891, 11088, 13846],
    u'l_27': [19757, 45058, 83470],
    u'l_26': [6500],
    u'l_19': [8309, 15850, 17056, 20629, 25899, 47147, 47186, 49544, 108943
        ↪  , 177323, 200639, 252551, 334120, 341621]
  }),
...
```

B.2 Clinamen with up to 3 errors, Faustroll corpus

clear

afar, ahead, Alas, altar, appear, bar, beam, beard, bears, beat, beer, ble, bleed, blew, bluer, bread, break, Caesar, calvary, can, canal, care, cedar, cellar, chair, charm, cheek, chen, chere, chern, choir, clad, claim, clasp, claws, clean, clear, clearly, clerks, climb, clock, clogs, close, cloth, color, coral, crab, crap, cresc, crest, Dead, dead, dear, Dewar, ear, ears, eat, ever, far, fear, Fear, feat, flag, flat, flesh, floor, Friar, glare, Great, great, head, hear, heard, heart, heat, Her, her, idea, ideal, ideas, jar, law, lay, lead, leaf, leap, least, leave, led, lees, left, leg, legs, lent, leper, less, lest, let, mean, meat, near, oar, Ocean, Opera, over, peak, pearl, per, plat, pleas, read, Read, real, rear, sea, Sea, seat, sheer, slab, sleep, solar, speak, star, steam, sugar, swear, swears, sweat, tean, tears, their, vulgar, war, year, years, zeal

fania

acid, aid, aim, air, an, ance, and, animae, animal, Anna, ant, anti, ants, anvil, any, axis, Baba, bank, banks, basin, cabin, can, canal, Cane, canvas, dance, Danzig, data, Denis, fa, face, faced, faces, facet, facing, fact, facts, fading, faIt, faith, fake, fall, falls, false, family, fan, fans, far, fat, fate, fauns, favor, final, find, finds, fine, finer, fins, flint, fluid, foil, francs, fruit, gain, habit, hair, hand, hands, india, Jane, Janus, Kaka, Kantian, laid, lance, land, lanes, Latin, lava, mail, main, Man, man, many, nadir, nail, nib, nil, pair, pan, Pan, Papio, papio, Paris, rang, range, rapid, said, sail, Saint, saliva, San, sand, sang, sonic, tail, Tait, Tanit, tunic, unit, vain, valid, van, vanish, vanity, vans, vina, Yan

moss

abyss, Across, across, acts, adds, Alas, almost, also, among, amor, amore, amour, ants, apes, arms, arose, as, As, ash, ask, ass, axis, bars, base, bases, beds, best, bis, blows, Boat, boat, boats, body, bolus, bone, bones, book, books, boot, boots, bores, born, Bosse, both, bout, bow, bowl, bows, box, boy, Boys, brass, brows, bust, case, cases, cash, cast, chose, clogs, close, co, coast, coats, Code, coins, cold, come, comes, cool, copy, cords, cost, Cost, costs, cows, crass, cross, cuIs, cups, days, demons, Deus, disk, disks, Do, do, does, dogs, dome, domos, done, door, doors, douds, down,

Down, dress, drops, dust, ears, ease, easy, eats, eggs, ells, else, ends, Eros, ess, est, eyes, fans, fess, fins, fish, fist, fists, foam, fog, foil, folds, foot, For, for, fore, fork, Form, form, forms, fotms, foul, four, fox, foxes, Ghost, ghosts, glass, glows, go, God, gods, goes, Gog, Gogh, gold, Gold, gong, good, goods, gown, gowns, grass, hams, has, hast, His, his, ho, Ho, holds, holes, Holy, home, Homo, hoof, hooks, hope, horn, horns, Horse, horse, horses, host, hot, hour, Hour, hours, house, houses, how, How, humors, hums, ikons, iris, irs, is, Is, Its, its, jaws, Jesus, jibs, job, John, jowls, joy, Just, just, kiosks, kiss, knows, last, laws, Lays, lees, legs, less, lest, lies, lions, lips, Lo, lobe, loins, Long, long, looks, Lord, lord, lords, lore, lose, loss, lost, Loti, lots, loud, louse, Love, love, loves, low, Loye, m, made, mail, main, make, makes, male, man, many, map, maps, mask, mass, masses, mast, masts, may, me, mean, means, meat, meet, men, mere, mesh, meshes, met, milk, mimes, mist, mite, mites, mob, moist, moles, month, months, moon, mor, more, Moses, most, motor, mount, Mour, mouth, mouths, moved, mower, Mrs, much, music, must, Must, my, nest, news, nisi, no, No, noise, non, none, noon, Nor, nor, nos, nose, Not, not, note, now, Now, nuts, o, oak, oar, oars, oc, odd, of, off, ofQ, oil, old, on, one, ones, or, orb, orms, our, out, own, pass, past, pigs, piss, Plus, Poe, poets, pole, poles, ponds, Poor, poor, pope, port, Pour, prose, Prose, rats, rays, rest, rise, rises, road, robe, robes, rock, rocks, rod, Roi, role, roll, rolls, rome, roof, room, rooms, root, rope, ropes, rose, rosy, row, rows, s, says, sc, sets, shops, smock, smoke, So, so, soft, sole, Some, some, son, songs, sons, soon, Soon, sorb, soul, souls, sows, sums, suns, tats, This, this, those, Thus, thus, tjis, to, To, toad, toads, tock, toes, told, tome, tone, toO, too, took, top, tops, tore, torn, tossed, Town, town, Tres, tres, ups, us, use, vans, vast, Was, was, wash, wasps, webs, whose, wigs, Woan, won, wont, wood, word, words, wore, Work, work, Works, works, worm, worn, wove, Yes, yolk, York, you, You, your, Your

B.3 WORDNET

B.3.1 ANTINOMY

```
[
  Synset('clear.n.01'), Synset('open.n.01'), Synset('unclutter.v.01'),
  Synset('clear.v.02'), Synset('clear_up.v.04'), Synset('authorize.v.01'),
  Synset('clear.v.05'), Synset('pass.v.09'), Synset('clear.v.07'),
  Synset('clear.v.08'), Synset('clear.v.09'), Synset('clear.v.10'),
  Synset('clear.v.11'), Synset('clear.v.12'), Synset('net.v.02'),
  Synset('net.v.01'), Synset('gain.v.08'), Synset('clear.v.16'),
  Synset('clear.v.17'), Synset('acquit.v.01'), Synset('clear.v.19'),
  Synset('clear.v.20'), Synset('clear.v.21'), Synset('clear.v.22'),
```

```
  Synset('clear.v.23'), Synset('clear.v.24'), Synset('clear.a.01'),
  Synset('clear.s.02'), Synset('clear.s.03'), Synset('clear.a.04'),
  Synset('clear.s.05'), Synset('clear.s.06'), Synset('clean.s.03'),
  Synset('clear.s.08'), Synset('clear.s.09'), Synset('well-defined.a.02'),
  Synset('clear.a.11'), Synset('clean.s.02'), Synset('clear.s.13'),
  Synset('clear.s.14'), Synset('clear.s.15'), Synset('absolved.s.01'),
  Synset('clear.s.17'), Synset('clear.r.01'), Synset('clearly.r.04')
]
```

```
synset item:clear.n.01            synset item:clear.v.22
synset item:open.n.01             synset item:clear.v.23
synset item:unclutter.v.01        synset item:clear.v.24
antonym out:clutter               synset item:clear.a.01
antonym in:clutter                antonym out:unclear
synset item:clear.v.02            antonym in:unclear
synset item:clear_up.v.04         synset item:clear.s.02
antonym out:overcast              synset item:clear.s.03
antonym in:overcast               synset item:clear.a.04
synset item:authorize.v.01        antonym out:opaque
synset item:clear.v.05            antonym in:opaque
synset item:pass.v.09             synset item:clear.s.05
synset item:clear.v.07            synset item:clear.s.06
antonym out:bounce                synset item:clean.s.03
antonym in:bounce                 synset item:clear.s.08
synset item:clear.v.08            synset item:clear.s.09
synset item:clear.v.09            synset item:well-defined.a.02
synset item:clear.v.10            antonym out:ill-defined
synset item:clear.v.11            antonym in:ill-defined
synset item:clear.v.12            synset item:clear.a.11
synset item:net.v.02              antonym out:cloudy
synset item:net.v.01              antonym in:cloudy
synset item:gain.v.08             synset item:clean.s.02
synset item:clear.v.16            synset item:clear.s.13
synset item:clear.v.17            synset item:clear.s.14
synset item:acquit.v.01           synset item:clear.s.15
antonym out:convict               synset item:absolved.s.01
antonym in:convict                synset item:clear.s.17
synset item:clear.v.19            synset item:clear.r.01
synset item:clear.v.20            synset item:clearly.r.04
synset item:clear.v.21
```

B.3.2 Syzygy

```
[
  Synset('clear.n.01'), Synset('open.n.01'), Synset('unclutter.v.01'),
  Synset('clear.v.02'), Synset('clear\_up.v.04'), Synset('authorize.v.01'),
  Synset('clear.v.05'), Synset('pass.v.09'), Synset('clear.v.07'),
  Synset('clear.v.08'), Synset('clear.v.09'), Synset('clear.v.10'),
  Synset('clear.v.11'), Synset('clear.v.12'), Synset('net.v.02'),
  Synset('net.v.01'), Synset('gain.v.08'), Synset('clear.v.16'),
```

```
  Synset('clear.v.17'), Synset('acquit.v.01'), Synset('clear.v.19'),
  Synset('clear.v.20'), Synset('clear.v.21'), Synset('clear.v.22'),
  Synset('clear.v.23'), Synset('clear.v.24'), Synset('clear.a.01'),
  Synset('clear.s.02'), Synset('clear.s.03'), Synset('clear.a.04'),
  Synset('clear.s.05'), Synset('clear.s.06'), Synset('clean.s.03'),
  Synset('clear.s.08'), Synset('clear.s.09'), Synset('well-defined.a.02'),
  Synset('clear.a.11'), Synset('clean.s.02'), Synset('clear.s.13'),
  Synset('clear.s.14'), Synset('clear.s.15'), Synset('absolved.s.01'),
  Synset('clear.s.17'), Synset('clear.r.01'), Synset('clearly.r.04')
]
```

Step (2) then retrieves related terms. First it gets hypernyms.

```
synset: clear.n.01                     hyponyms: clear-cut, deforest,
hyponyms: ---                                 ↪  disafforest, denude, bare,
hypernyms: innocence                          ↪  denudate, strip, stump
holonyms: ---                          hypernyms: remove, take, take\_away,
                                              ↪  withdraw
synset: open.n.01                      holonyms: ---
hyponyms: ---
hypernyms: area, country               synset: pass.v.09
holonyms: ---                          hyponyms: clear
                                       hypernyms: succeed, win,
synset: unclutter.v.01                        ↪  come\_through,
hyponyms: ---                                 ↪  bring\_home\_the\_bacon,
hypernyms: change, alter, modify              ↪  deliver\_the\_goods
holonyms: ---                          holonyms: ---

synset: clear.v.02                     synset: clear.v.07
hyponyms: ---                          hyponyms: ---
hypernyms: make, create                hypernyms: ---
holonyms: ---                          holonyms: ---

synset: clear\_up.v.04                  synset: clear.v.08
hyponyms: ---                          hyponyms: ---
hypernyms: ---                         hypernyms: vanish, disappear,
holonyms: ---                                 ↪  go\_away
                                       holonyms: ---
synset: authorize.v.01
hyponyms: approbate, approve, O.K.,     synset: clear.v.09
      ↪  okay, sanction,               hyponyms: hop
      ↪  certificate, commission,      hypernyms: pass, overtake, overhaul
      ↪  declare, license, certify,    holonyms: ---
      ↪  validate, formalise
hypernyms: permit, allow, let,         synset: clear.v.10
      ↪  countenance                   hyponyms: ---
holonyms: ---                          hypernyms: clarify, clear\_up,
                                              ↪  elucidate
synset: clear.v.05                     holonyms: ---
```

```
synset: clear.v.11                              hypernyms: settle, square\_off,
hyponyms: ---                                       ↪  square\_up, determine
hypernyms: free, discharge                      holonyms: ---
holonyms: ---


synset: clear.v.12                              synset item:clear.v.20
hyponyms: ---                                   hyponyms: ---
hypernyms: rid, free, disembarass               hypernyms: change, alter, modify
holonyms: ---                                   holonyms: ---


synset: net.v.02                                synset item:clear.v.21
hyponyms: ---                                   hyponyms: ---
hypernyms: yield, pay, bear                     hypernyms: empty
holonyms: ---                                   holonyms: ---


synset: net.v.01                                synset item:clear.v.22
hyponyms: ---                                   hyponyms: ---
hypernyms: profit, gain, benefit               hypernym out:take\_out, move\_out,
holonyms: ---                                       ↪  remove
                                                holonyms: ---

synset: gain.v.08
hyponyms: eke\_out, squeeze\_out,               synset item:clear.v.23
        ↪  gross, profit,                       hyponyms: ---
        ↪  turn\_a\_profit, rake\_in,          hypernym out:empty
        ↪  shovel\_in, rake\_off,              holonyms: ---
        ↪  take\_home, bring\_home,
        ↪  yield, pay, bear                     synset item:clear.v.24
hypernyms: get, acquire                         hyponyms: ---
holonyms: ---                                   hypernym out:remove, take,
                                                    ↪  take\_away, withdraw
                                                holonyms: ---
synset: clear.v.16
hyponyms: ---                                   synset item:clear.a.01
hypernyms: sell                                 hyponyms: ---
holonyms: ---                                   hypernyms: ---
                                                holonyms: ---

synset: clear.v.17
hyponyms: ---                                   synset item:clear.s.02
hypernyms: pass, clear                          hyponyms: ---
holonyms: ---                                   hypernyms: ---
                                                holonyms: ---

synset: acquit.v.01
hyponyms: ---                                   synset item:clear.s.03
hyponyms: purge, vindicate,                     hyponyms: ---
        ↪  whitewash, pronounce,                hypernyms: ---
        ↪  label, judge                         holonyms: ---
holonyms: ---
                                                synset item:clear.a.04
                                                hyponyms: ---
synset: clear.v.19                              hypernyms: ---
hyponyms: ---                                   holonyms: ---
```

```
                                              hypernyms: ---
synset item:clear.s.05                        holonyms: ---
hyponyms: ---
hypernyms: ---                                synset item:clear.s.13
holonyms: ---                                 hyponyms: ---
                                              hypernyms: ---
synset item:clear.s.06                        holonyms: ---
hyponyms: ---
hypernyms: ---                                synset item:clear.s.14
holonyms: ---                                 hyponyms: ---
                                              hypernyms: ---
synset item:clean.s.03                        holonyms: ---
hyponyms: ---
hypernyms: ---                                synset item:clear.s.15
holonyms: ---                                 hyponyms: ---
                                              hypernyms: ---
synset item:clear.s.08                        holonyms: ---
hyponyms: ---
hypernyms: ---                                synset item:absolved.s.01
holonyms: ---                                 hyponyms: ---
                                              hypernyms: ---
synset item:clear.s.09                        holonyms: ---
hyponyms: ---
hypernyms: ---                                synset item:clear.s.17
holonyms: ---                                 hyponyms: ---
                                              hypernyms: ---
synset item:well-defined.a.02                 holonyms: ---
hyponyms: ---
hypernyms: ---                                synset item:clear.r.01
holonyms: ---                                 hyponyms: ---
                                              hypernyms: ---
synset item:clear.a.11                        holonyms: ---
hyponyms: ---
hypernyms: ---                                synset item:clearly.r.04
holonyms: ---                                 hyponyms: ---
                                              hypernyms: ---
synset item:clean.s.02                        holonyms: ---
hyponyms: ---


synset: clear.n.01
hypernyms: innocence                          synset: authorize.v.01
                                              hyponyms: approbate, approve, O.K.,
synset: open.n.01                                   ↪  okay, sanction,
hypernyms: area, country                            ↪  certificate, commission,
                                                    ↪  declare, license, certify,
synset: unclutter.v.01                              ↪  validate, formalise
hypernyms: change, alter, modify              hypernyms: permit, allow, let,
                                                    ↪  countenance
synset: clear.v.02
hypernyms: make, create                       synset: clear.v.05
```

```
hyponyms: clear-cut, deforest,         hyponyms: eke\_out, squeeze\_out,
      ↪   disafforest, denude, bare,         ↪   gross, profit,
      ↪   denudate, strip, stump             ↪   turn\_a\_profit, rake\_in,
hypernyms: remove, take, take\_away,        ↪   shovel\_in, rake\_off,
      ↪   withdraw                           ↪   take\_home, bring\_home,
                                             ↪   yield, pay, bear
synset: pass.v.09                      hypernyms: get, acquire
hyponyms: clear
hypernyms: succeed, win,               synset: clear.v.16
      ↪   come\_through,               hypernyms: sell
      ↪   bring\_home\_the\_bacon,
      ↪   deliver\_the\_goods          synset: clear.v.17
                                       hypernyms: pass, clear
synset: clear.v.08
hypernyms: vanish, disappear,          synset: acquit.v.01
      ↪   go\_away                     hyponyms: purge, vindicate,
                                             ↪   whitewash, pronounce,
synset: clear.v.09                           ↪   label, judge
hyponyms: hop
hypernyms: pass, overtake, overhaul    synset: clear.v.19
                                       hypernyms: settle, square\_off,
synset: clear.v.10                           ↪   square\_up, determine
hypernyms: clarify, clear\_up,
      ↪   elucidate                    synset: clear.v.20
                                       hypernyms: change, alter, modify
synset: clear.v.11
hypernyms: free, discharge             synset: clear.v.21
                                       hypernyms: empty
synset: clear.v.12
hypernyms: rid, free, disembarass      synset: clear.v.22
                                       hypernyms: take\_out, move\_out,
synset: net.v.02                             ↪   remove
hypernyms: yield, pay, bear
                                       synset: clear.v.23
synset: net.v.01                       hypernyms: empty
hypernyms: profit, gain, benefit
                                       synset: clear.v.24
synset: gain.v.08                      hypernyms: remove, take, take\_away,
                                             ↪   withdraw


[
  Synset('clear.n.01'), Synset('open.n.01'), Synset('unclutter.v.01'),
  Synset('clear.v.02'), Synset('clear_up.v.04'), Synset('authorize.v.01'),
  Synset('clear.v.05'), Synset('pass.v.09'), Synset('clear.v.07'),
  Synset('clear.v.08'), Synset('clear.v.09'), Synset('clear.v.10'),
  Synset('clear.v.11'), Synset('clear.v.12'), Synset('net.v.02'),
  Synset('net.v.01'), Synset('gain.v.08'), Synset('clear.v.16'),
  Synset('clear.v.17'), Synset('acquit.v.01'), Synset('clear.v.19'),
  Synset('clear.v.20'), Synset('clear.v.21'), Synset('clear.v.22'),
  Synset('clear.v.23'), Synset('clear.v.24'), Synset('clear.a.01'),
```

```
  Synset('clear.s.02'), Synset('clear.s.03'), Synset('clear.a.04'),
  Synset('clear.s.05'), Synset('clear.s.06'), Synset('clean.s.03'),
  Synset('clear.s.08'), Synset('clear.s.09'), Synset('well-defined.a.02'),
  Synset('clear.a.11'), Synset('clean.s.02'), Synset('clear.s.13'),
  Synset('clear.s.14'), Synset('clear.s.15'), Synset('absolved.s.01'),
  Synset('clear.s.17'), Synset('clear.r.01'), Synset('clearly.r.04')
]

  synset item:clear.n.01                hypernym out:let
  hypernym out:innocence                hypernym in:let
  []                                    hypernym out:countenance
  synset item:open.n.01                 hypernym in:countenance
  hypernym out:area                     []
  hypernym out:country                  synset item:clear.v.05
  hypernym in:country                   hyponym out:clear-cut
  []                                    hyponym out:deforest
  synset item:unclutter.v.01            hyponym out:disforest
  hypernym out:change                   hyponym out:disafforest
  hypernym in:change                    hyponym out:denude
  hypernym out:alter                    hyponym out:bare
  hypernym out:modify                   hyponym in:bare
  []                                    hyponym out:denudate
  synset item:clear.v.02                hyponym out:strip
  hypernym out:make                     hyponym out:stump
  hypernym in:make                      hypernym out:remove
  hypernym out:create                   hypernym out:take
  []                                    hypernym in:take
  synset item:clear_up.v.04             hypernym out:take_away
  []                                    hypernym out:withdraw
  synset item:authorize.v.01            []
  hyponym out:approbate                 synset item:pass.v.09
  hyponym out:approve                   hyponym out:clear
  hyponym out:O.K.                      hyponym in:clear
  hyponym out:okay                      hypernym out:succeed
  hyponym out:sanction                  hypernym in:succeed
  hyponym out:certificate               hypernym out:win
  hyponym in:certificate                hypernym out:come_through
  hyponym out:commission                hypernym out:bring_home_the_bacon
  hyponym out:declare                   hypernym out:deliver_the_goods
  hyponym in:declare                    []
  hyponym out:license                   synset item:clear.v.07
  hyponym out:licence                   []
  hyponym out:certify                   synset item:clear.v.08
  hyponym out:validate                  hypernym out:vanish
  hyponym out:formalize                 hypernym in:vanish
  hyponym out:formalise                 hypernym out:disappear
  hypernym out:permit                   hypernym out:go_away
  hypernym in:permit                    []
  hypernym out:allow                    synset item:clear.v.09
  hypernym in:allow                     hyponym out:hop
```

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```
hypernym out:pass                          hypernym out:acquire
hypernym in:pass                           []
hypernym out:overtake                      synset item:clear.v.16
hypernym out:overhaul                      hypernym out:sell
[]                                         []
synset item:clear.v.10                     synset item:clear.v.17
hypernym out:clarify                       hypernym out:pass
hypernym out:clear_up                      hypernym in:pass
hypernym out:elucidate                     hypernym out:clear
[]                                         hypernym in:clear
synset item:clear.v.11                     []
hypernym out:free                          synset item:acquit.v.01
hypernym in:free                           hyponym out:purge
hypernym out:discharge                     hyponym out:vindicate
[]                                         hyponym out:whitewash
synset item:clear.v.12                     hypernym out:pronounce
hypernym out:rid                           hypernym in:pronounce
hypernym out:free                          hypernym out:label
hypernym in:free                           hypernym out:judge
hypernym out:disembarrass                  hypernym in:judge
[]                                         []
synset item:net.v.02                       synset item:clear.v.19
hypernym out:yield                         hypernym out:settle
hypernym out:pay                           hypernym out:square_off
hypernym in:pay                            hypernym out:square_up
hypernym out:bear                          hypernym out:determine
[]                                         hypernym in:determine
synset item:net.v.01                       []
hypernym out:profit                        synset item:clear.v.20
hypernym out:gain                          hypernym out:change
hypernym in:gain                           hypernym in:change
hypernym out:benefit                       hypernym out:alter
hypernym in:benefit                        hypernym out:modify
[]                                         []
synset item:gain.v.08                      synset item:clear.v.21
hyponym out:eke_out                        hypernym out:empty
hyponym out:squeeze_out                    hypernym in:empty
hyponym out:gross                          []
hyponym out:profit                         synset item:clear.v.22
hyponym out:turn_a_profit                  hypernym out:take_out
hyponym out:rake_in                        hypernym out:move_out
hyponym out:shovel_in                      hypernym out:remove
hyponym out:rake_off                       []
hyponym out:take_home                      synset item:clear.v.23
hyponym out:bring_home                     hypernym out:empty
hyponym out:yield                          hypernym in:empty
hyponym out:pay                            []
hyponym in:pay                             synset item:clear.v.24
hyponym out:bear                           hypernym out:remove
hypernym out:get                           hypernym out:take
```

```
hypernym in:take                                 []
hypernym out:take_away                           synset item:well-defined.a.02
hypernym out:withdraw                            []
[]                                               synset item:clear.a.11
synset item:clear.a.01                           []
[]                                               synset item:clean.s.02
synset item:clear.s.02                           []
[]                                               synset item:clear.s.13
synset item:clear.s.03                           []
[]                                               synset item:clear.s.14
synset item:clear.a.04                           []
[]                                               synset item:clear.s.15
synset item:clear.s.05                           []
[]                                               synset item:absolved.s.01
synset item:clear.s.06                           []
[]                                               synset item:clear.s.17
synset item:clean.s.03                           []
[]                                               synset item:clear.r.01
synset item:clear.s.08                           []
[]                                               synset item:clearly.r.04
synset item:clear.s.09                           []
```

B.4 Bing JSON Results

```
"d": { "results": [
  { "__metadata":
    { "uri": "https://api.datamarket.azure.com/Data.ashx/Bing/Search/Image?Query=\u
      "type": "ImageResult"
    }, // __metadata
    "ID": "e09072a2-faf3-47ac-b77d-46a8df8941aa",
    "Title": "Cute Kittens - Pictures - The Wondrous Pics",
    "MediaUrl": "http://wondrouspics.com/wp-content/uploads/2011/12/Cute-Kitten2.jp
    "SourceUrl": "http://wondrouspics.com/cute-kittens-pictures/",
    "DisplayUrl": "wondrouspics.com/cute-kittens-pictures",
    "Width": "1440",
    "Height": "900",
    "FileSize": "238015",
    "ContentType": "image/jpeg",
    "Thumbnail":
    { "__metadata":
      { "type": "Bing.Thumbnail"
      },
      "MediaUrl": "http://ts2.mm.bing.net/th?id=OIP.M5692e5d79242507e30600fd546393
      "ContentType": "image/jpg",
      "Width": "480",
```

```
      "Height": "300",
      "FileSize": "13856"
    } // Tumbnail
  }, ...
  ], // results
  "__next": "https://api.datamarket.azure.com/Data.ashx/Bing/Search/Image?
} // d
```

B.5 Random Quotes

```python
def getrandquote():
    root_path = os.path.dirname(os.path.abspath(__file__))
    root_path = root_path[:-4]
    corpus_root = root_path + '/app/static/corpus'
    path_b = corpus_root + '/quotes.txt'
    quotes_text = codecs.open(path_b, "r", encoding='utf-8')
    quotestext = quotes_text.readlines()
    quotes_text.close()
    return random.choice(quotestext)
```

B.6 Stopwords

B.6.1 English

i, me, my, myself, we, our, ours, ourselves, yo, your, yours, yourself, yourselves, he, him, his, himself, she, her, hers, herself, it, its, itself, they, them, their, theirs, themselves, what, which, who, whom, this, that, these, those, am, is, are, was, were, be, been, being, have, has, had, having, do, does, did, doing, a, an, the, and, but, if, or, because, as, until, while, of, at, by, for, with, about, against, between, into, through, during, before, after, above, below, to, from, up, down, in, out, on, off, over, under, again, further, then, once, here, there, when, where, why, how, all, any, both, each, few, more, most, other, some, such, no, nor, not, only, own, same, so, than, too, very, s, t, can, will, just, don, should, now

B.6.2 French

a, aux, avec, ce, ces, dans, de, des, d, elle, en, et, eux, il, je, la, le, leur, lui, ma, mais, me, même, mes, moi, mon, ne, nos, notre, nous, on, o, par, pas, pour, q, que, qui, sa, se, ses, son, sur, ta, te, tes, toi, ton, t, un, une, vos, votre, vous, été, étée, étées, étés, étant, étante, étants, étantes, suis, es, est, sommes, êtes, sont, serai, seras, sera, serons, serez, seront, serais, serait, serions, seriez,

seraient, étais, était, étions, étiez, étaient, fus, fut, fûmes, fûtes, furent, sois, soit, soyons, soyez, soient, fusse, fusses, fût, fussions, fussiez, fussent, ayant, ayante, ayantes, ayants, e, eue, eues, eus, ai, as, avons, avez, ont, aurai, auras, aura, aurons, aurez, auront, aurais, aurait, aurions, auriez, auraient, avais, avait, avions, aviez, avaient, eut, eûmes, eûtes, eurent, aie, aies, ait, ayons, ayez, aient, eusse, eusses, eût, eussions, eussiez, eussent

B.6.3 GERMAN

aber, alle, allem, allen, aller, alles, als, also, am, an, ander, andere, anderem, anderen, anderer, anderes, anderm, andern, anderr, anders, auch, auf, aus, bei, bin, bis, bist, da, damit, dann, der, den, des, dem, die, das, daß, derselbe, derselben, denselben, desselben, demselben, dieselbe, dieselben, dasselbe, daz, dein, deine, deinem, deinen, deiner, deines, denn, derer, dessen, dich, dir, d, dies, diese, diesem, diesen, dieser, dieses, doch, dort, durch, ein, eine, einem, einen, einer, eines, einig, einige, einigem, einigen, einiger, einiges, einmal, er, ihn, ihm, es, etwas, euer, eure, eurem, euren, eurer, eures, für, gegen, gewesen, hab, habe, haben, hat, hatte, hatten, hier, hin, hinter, ich, mich, mir, ihr, ihre, ihrem, ihren, ihrer, ihres, euch, im, in, indem, ins, ist, jede, jedem, jeden, jeder, jedes, jene, jenem, jenen, jener, jenes, jetzt, kann, kein, keine, keinem, keinen, keiner, keines, können, könnte, machen, man, manche, manchem, manchen, mancher, manches, mein, meine, meinem, meinen, meiner, meines, mit, muss, musste, nach, nicht, nichts, noch, nun, nur, ob, oder, ohne, sehr, sein, seine, seinem, seinen, seiner, seines, selbst, sich, sie, ihnen, sind, so, solche, solchem, solchen, solcher, solches, soll, sollte, sondern, sonst, über, um, und, uns, unse, unsem, unsen, unser, unses, unter, viel, vom, von, vor, während, war, waren, warst, was, weg, weil, weiter, welche, welchem, welchen, welcher, welches, wenn, werde, werden, wie, wieder, will, wir, wird, wirst, wo, wollen, wollte, würde, würden, z, zum, zur, zwar, zwischen

B.7 IMAGE SPIRAL

```
1  function createSpiral(imglist){
2    if (imglist.length === 10){
3      var spiral_code = ' \
4      <div class="spouter"> \
5        <div class="spleft"> \
6          <div class="spltop"> \
7            <div class="spltleft"> \
8              <a id="a3" class="spimg" href="'+imglist[3][2]+'" ><img
   ↪  id="img3" src="'+imglist[3][1]+'" title="'+imglist[3][0]+' ---
   ↪  '+imglist[3][3]+'" height="210" width="210"/></a> \
```

```
 9              </div> \
10            <div class="spltright"> \
11              <div class="spltrtop"> \
12                <a id="a8" class="spimg" href="'+imglist[8][2]+'" ><img
    ↪  id="img8" src="'+imglist[8][1]+'" title="'+imglist[8][0]+'"
    ↪  height="130" width="130"/></a> \
13              </div> \
14              <div class="spltrbottom"> \
15                <div class="spltrbleft"> \
16                  <div class="spltrbltop"> \
17                    <div class="spltrbltleft"> \
18                      <a id="a0" class="spimg" href="'+imglist[0][2]+'"
    ↪  ><img id="img0" src="'+imglist[0][1]+'" title="'+imglist[0][0]+'"
    ↪  height="30" width="30"/></a> \
19                    </div> \
20                    <div class="spltrbltright"> \
21                      <div class="spltrbltrtop"> \
22                        <a id="a1" class="spimg" href="'+imglist[1][2]+'"
    ↪  ><img id="img1" src="'+imglist[1][1]+'" title="'+imglist[1][0]+'"
    ↪  height="20" width="20"/></a> \
23                      </div> \
24                      <div class="spltrbltrbottom"> \
25                        <div class="spltrbltrbleft"> \
26                          <a id="a5" class="spimg"
    ↪  href="'+imglist[5][2]+'" ><img id="img5" src="'+imglist[5][1]+'"
    ↪  title="'+imglist[5][0]+'" height="10" width="10"/></a> \
27                        </div> \
28                        <div class="spltrbltrbright"> \
29                          <a id="a6" class="spimg"
    ↪  href="'+imglist[6][2]+'" ><img id="img6" src="'+imglist[6][1]+'"
    ↪  title="'+imglist[6][0]+'" height="10" width="10"/></a> \
30                        </div> \
31                      </div> \
32                    </div> \
33                  </div> \
34                  <div class="spltrblbottom"> \
35                    <a id="a7" class="spimg" href="'+imglist[7][2]+'"
    ↪  ><img id="img7" src="'+imglist[7][1]+'" title="'+imglist[7][0]+'"
    ↪  height="50" width="50"/></a> \
36                  </div> \
37                </div> \
38                <div class="spltrbright"> \
39                  <a id="a2" class="spimg" href="'+imglist[2][2]+'" ><img
    ↪  id="img2" src="'+imglist[2][1]+'" title="'+imglist[2][0]+'"
    ↪  height="80" width="80"/></a> \
40                </div> \
41              </div> \
42            </div> \
43          </div> \
44          <div class="splbottom"> \
```

```
45          <a id="a9" class="spimg" href="'+imglist[9][2]+'" ><img
    ↪  id="img9" src="'+imglist[9][1]+'" title="'+imglist[9][0]+'"
    ↪  height="340" width="340"/></a> \
46         </div> \
47       </div> \
48       <div class="spright"> \
49          <a id="a4" class="spimg" href="'+imglist[4][2]+'" ><img
    ↪  id="img4" src="'+imglist[4][1]+'" title="'+imglist[4][0]+'"
    ↪  height="550" width="550"/></a> \
50         </div> \
51      </div> \
52      ';
53      var list_code = [];
54      for (i in imglist) {
55        var img = ' \
56          <div class="w3-col s12 m6 l3 w3-padding"> \
57            <a href="'+imglist[i][2]+'"> \
58              <img src="'+imglist[i][1]+'" \
59              title="'+imglist[i][0]+'" style="width:100%"> \
60            </a> \
61          </div> \
62          ';
63        list_code.push(img);
64      } // end for
65      $('#img_spiral_div').html(spiral_code);
66      $('#img_list_div').html(list_code);
67    } // end if
68   else{
69      // console.log("inside else");
70      $('.img_empty').wrap("<div>Not enough results found.</div>");
71    } // end else
72  }
```

WordNet

C

The sections below show an example result returned by WordNet for the query 'clear'. It is split into four parts, nouns (n), verbs (v), adjectives (adj) and adverbs (adv). Each entry is preceded by an S for synset.

C.1 Noun

S: (n) *clear* (the state of being free of suspicion) "investigation showed that he was in the clear"

S: (n) open, *clear* (a clear or unobstructed space or expanse of land or water) "finally broke out of the forest into the open"

C.2 Verb

S: (v) unclutter, *clear* (rid of obstructions) "Clear your desk"

S: (v) *clear* (make a way or path by removing objects) "Clear a path through the dense forest"

S: (v) clear up, *clear*, light up, brighten (become clear) "The sky cleared after the storm"

S: (v)   authorize, authorise, pass, **clear** (grant authorization or clearance for) "Clear the manuscript for publication"; "The rock star never authorized this slanderous biography"

S: (v)   **clear** (remove) "clear the leaves from the lawn"; "Clear snow from the road"

S: (v)   pass, **clear** (go unchallenged; be approved) "The bill cleared the House"

S: (v)   **clear** (be debited and credited to the proper bank accounts) "The check will clear within 2 business days"

S: (v)   **clear** (go away or disappear) "The fog cleared in the afternoon"

S: (v)   **clear**, top (pass by, over, or under without making contact) "the balloon cleared the tree tops"

S: (v)   **clear**, clear up, shed light on, crystallize, crystallise, crystalize, crystalise, straighten out, sort out, enlighten, illuminate, elucidate (make free from confusion or ambiguity; make clear) "Could you clarify these remarks?"; "Clear up the question of who is at fault"

S: (v)   **clear** (free from payment of customs duties, as of a shipment) "Clear the ship and let it dock"

S: (v)   **clear** (clear from impurities, blemishes, pollution, etc.) "clear the water before it can be drunk"

S: (v)   net, **clear** (yield as a net profit) "This sale netted me $1 million"

S: (v)   net, sack, sack up, clear (make as a net profit) "The company cleared $1 million"

S: (v)   gain, take in, **clear**, make, earn, realize, realise, pull in, bring in (earn on some commercial or business transaction; earn as salary or wages) "How much do you make a month in your new job?"; "She earns a lot in her new job"; "this merger brought in lots of money"; "He clears $5,000 each month"

S: (v)   **clear** (sell) "We cleared a lot of the old model cars"

S: (v)   **clear** (pass an inspection or receive authorization) "clear customs"

S: (v)   acquit, assoil, **clear**, discharge, exonerate, exculpate (pronounce not guilty of criminal charges) "The suspect was cleared of the murder charges"█████

S: (v)   **clear**, solve (settle, as of a debt) "clear a debt"; "solve an old debt"

S: (v)   **clear** (make clear, bright, light, or translucent) "The water had to be cleared through filtering"

S: (v)   **clear** (rid of instructions or data) "clear a memory buffer"

S: (v)   **clear** (remove (people) from a building) "clear the patrons from the theater after the bomb threat"

S: (v)   **clear** (remove the occupants of) "Clear the building"

S: (v)   **clear**, clear up (free (the throat) by making a rasping sound) "Clear the throat"

C.3 ADJECTIVE

S: (adj) *clear* (readily apparent to the mind) "a clear and present danger"; "a clear explanation"; "a clear case of murder"; "a clear indication that she was angry"; "gave us a clear idea of human nature"

S: (adj) *clear* (free from confusion or doubt) "a complex problem requiring a clear head"; "not clear about what is expected of us"

S: (adj) *clear*, open (affording free passage or view) "a clear view"; "a clear path to victory"; "open waters"; "the open countryside"

S: (adj) *clear* (allowing light to pass through) "clear water"; "clear plastic bags"; "clear glass"; "the air is clear and clean"

S: (adj) *clear* (free from contact or proximity or connection) "we were clear of the danger"; "the ship was clear of the reef"

S: (adj) *clear* (characterized by freedom from troubling thoughts (especially guilt)) "a clear conscience"; "regarded her questioner with clear untroubled eyes"

S: (adj) clean, *clear*, light, unclouded ((of sound or color) free from anything that dulls or dims) "efforts to obtain a clean bass in orchestral recordings"; "clear laughter like a waterfall"; "clear reds and blues"; "a light lilting voice like a silver bell"

S: (adj) *clear*, unmortgaged ((especially of a title) free from any encumbrance or limitation that presents a question of fact or law) "I have clear title to this property"

S: (adj) *clear*, clean-cut, clear-cut (clear and distinct to the senses; easily perceptible) "as clear as a whistle"; "clear footprints in the snow"; "the letter brought back a clear image of his grandfather"; "a spire clean-cut against the sky"; "a clear-cut pattern"

S: (adj) well-defined, *clear* (accurately stated or described) "a set of well-defined values"

S: (adj) *clear* (free from clouds or mist or haze) "on a clear day"

S: (adj) clean, *clear* (free of restrictions or qualifications) "a clean bill of health"; "a clear winner"

S: (adj) *clear* (free from flaw or blemish or impurity) "a clear perfect diamond"; "the clear complexion of a healthy young woman"

S: (adj) *clear* (clear of charges or deductions) "a clear profit"

S: (adj) *clear*, decipherable, readable (easily deciphered)

S: (adj) absolved, *clear*, cleared, exculpated, exonerated, vindicated (freed from any question of guilt) "is absolved from all blame"; "was now clear of the charge of cowardice"; "his official honor is vindicated"

S: (adj) *clear*, percipient (characterized by ease and quickness in perceiving)

"clear mind"; "a percipient author"

C.4 ADVERB

S: (adv)   *clear*, all the way (completely) "read the book clear to the end"; "slept clear through the night"; "there were open fields clear to the horizon"

S: (adv)   clearly, *clear* (in an easily perceptible manner) "could be seen clearly under the microscope"; "She cried loud and clear"

GIT HISTORY

D

D.1 Website Repository

```
* 0fbbfcd  |  Sat 15 Oct 2016  (HEAD -> master, origin/master, origin/HEAD) |
     ↪  Deleted local log
* 504bcfa  |  Sat 15 Oct 2016  |  Added meta description
* a7e4a5d  |  Sun 02 Oct 2016  |  Updated about
*   64b0c9a  |  Sun 02 Oct 2016  |  Work in progress
|\
| | *   76e1dbb  |  Fri 12 Aug 2016  (origin/live, live) |  Merge pull request
     ↪  #15 from Fania/master
| | |\
| | |/
| |/|
| * |   5fd81f9  |  Fri 12 Aug 2016  (tag: v.4.1) |  Merge pull request #14
     ↪   from Fania/thesis
| |\ \
| | * | 331ddfe  |  Fri 12 Aug 2016  (origin/thesis) |  Comment out prints
| | * | 878cade  |  Fri 12 Aug 2016  |  Log updates
| | * | d894400  |  Fri 12 Aug 2016  |  Fixed results-reverbs-origins numbers
| | * | 7a64760  |  Fri 12 Aug 2016  |  Fixed holonyms and meronyms
| |/ /
| * |   8efc58a  |  Fri 12 Aug 2016  |  Merge pull request #13 from Fania/live
| |\ \
| | |/
```

```
* | | c4b9eea  |  Thu 11 Aug 2016  |  About section update
|/ /
| * 0f6353a  |  Thu 11 Aug 2016  (tag: v.4.0) |  Added new paper to about
    ↪  section
| * 0fd2af4  |  Thu 11 Aug 2016  |  Cleaned files
| *   1bf06c8  |  Thu 11 Aug 2016  |  Merge branch 'live' of https://github.com
    ↪  /Fania/pata.physics.wtf into live
| |\
| * | 0b66aaf  |  Thu 11 Aug 2016  |  Enabled image and video in menu
| | *   15bdb1e  |  Thu 11 Aug 2016  |  Merge pull request #12 from Fania/
    ↪  master
| | |\
| |/ /
| | /
| |/
|/|
* |   23ea5c6  |  Thu 11 Aug 2016  |  Merge commit
|\ \
| |/
* | 8f5708d  |  Thu 11 Aug 2016  |  Changed date
* |   3b32674  |  Thu 11 Aug 2016  |  Merge pull request #11 from Fania/dev
|\ \
| * \   d480bfa  |  Thu 11 Aug 2016  (dev) |  Merge pull request #9 from Fania/
    ↪  prints
| |\ \
| | * | 4adf2a2  |  Thu 11 Aug 2016  (prints) |  Added meronyms, got rid of
    ↪  prints again
| | * | b454247  |  Thu 04 Aug 2016  |  ppsent
| | * | dbb33cd  |  Thu 04 Aug 2016  |  ppsent fix
| | * | ef33367  |  Sat 23 Jul 2016  |  stuff
| | * | 6edc4a3  |  Tue 19 Jul 2016  |  ppsent prints
| | * | 3fa7ab6  |  Tue 19 Jul 2016  |  about to change ppsent
| |/ /
| * | 96a7f8f  |  Mon 18 Jul 2016  |  log changes
| * | abdc8a1  |  Wed 06 Jul 2016  |  Revert "failed getty (3callspersec)"
| * | 975edb6  |  Wed 06 Jul 2016  |  failed getty (3callspersec)
| * | c9b6b82  |  Wed 06 Jul 2016  |  Prepping for rewriting Getty and Bing to
    ↪  run 10 times
| * | 62ad371  |  Wed 06 Jul 2016  |  Made Flickr Img List Vessel function
    ↪  standalone
| * | 8eaa132  |  Wed 06 Jul 2016  |  Fixed log printouts
| * | e6c1d5f  |  Tue 05 Jul 2016  |  flickr working with 10 images
| * | 916faa4  |  Tue 05 Jul 2016  |  10 images working
| * | 46b4209  |  Tue 05 Jul 2016  |  partially working imagelistvessel ith 10
    ↪  results
| * | efe1893  |  Tue 05 Jul 2016  |  still fucking in progress
| * | f549bab  |  Sun 03 Jul 2016  |  work in progress
| * | f4fdbea  |  Sun 03 Jul 2016  |  trap for empty data items in js
| * | 178b63a  |  Sun 03 Jul 2016  |  half assed img search 10 results done
| * | b00fd7e  |  Sun 03 Jul 2016  |  Video working
```

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```
| * | c99e8eb  |  Sun 03 Jul 2016  |  Getty works too.
| * | aeb081d  |  Sat 02 Jul 2016  |  Getty API down, flickr and Bing work
| * | d228062  |  Sat 02 Jul 2016  |  Flickr and Bing work
| * | c53b060  |  Sat 02 Jul 2016  |  Query is now 1 random item from pata set
| * | ac86e07  |  Sat 02 Jul 2016  |  Image search works again somehow
| * | 0c7713b  |  Tue 07 Jun 2016  |  work in progress
| * | 4fed23c  |  Tue 07 Jun 2016  |  added log with date and time
| * | 52c4394  |  Tue 07 Jun 2016  |  datetime log
|/ /
| * 2dfa9d3  |  Mon 06 Jun 2016  (tag: v.3.5) |  Ready to deploy
| * 0cc8be1  |  Mon 06 Jun 2016  |  Added log
|/
* 2c51dbc  |  Mon 06 Jun 2016  |  dot creeped into code
*   e49efa5  |  Mon 06 Jun 2016  |  pre-merge commit
|\
* | 6c43cea  |  Mon 06 Jun 2016  |  pre-merge commit again
* |   af51ef4  |  Mon 06 Jun 2016  |  pre-merge commit
|\ \
* \ \   4859e65  |  Mon 06 Jun 2016  |  pre merge commit
|\ \ \ \
* | | | 26a1d9c  |  Mon 06 Jun 2016  |  test commit
| | | * 3ef1630  |  Mon 06 Jun 2016  |  readme updates
| | | * 06b070a  |  Mon 16 May 2016  |  git log stuff
| | | *   10f61f9  |  Sun 08 May 2016  |  Merge remote-tracking branch 'refs/
      ↪  remotes/origin/master' into api
| | | |\
| |_|_|/
|/| | |
* | | | aa58f79  |  Sat 09 Apr 2016  |  screenshot
* | | | bea5474  |  Sat 09 Apr 2016  |  added screenshot
* | | | 7072f33  |  Sat 09 Apr 2016  (tag: v2.0) |  gitignore
| | | * 0e53ee6  |  Sat 09 Apr 2016  |  Working on new server stuff
| | | * a082595  |  Tue 05 Apr 2016  |  Update to Todo file
| | | * 6fbbd49  |  Sun 20 Mar 2016  |  pataphysicalisation work in progress
| | | * 80412e1  |  Sun 20 Mar 2016  |  Flickr, Getty and Bing working!
| | | * 00fd2c5  |  Sun 20 Mar 2016  |  radio buttons update properly
| | | * 7e03f4b  |  Wed 16 Mar 2016  |  Flickr OK Getty OK
| | | * df847d9  |  Wed 16 Mar 2016  |  Revert "Test revert commit"
| | | * 630bf1a  |  Wed 16 Mar 2016  |  Test revert commit
| | | * 62dfc0b  |  Wed 16 Mar 2016  |  Getty OK, Flickr NO
| | | * 17cff52  |  Wed 16 Mar 2016  |  Getty working
| | | * fde271f  |  Wed 16 Mar 2016  |  FUCK THIS SHIT
| | | * 9095fa1  |  Mon 14 Mar 2016  |  Flickr API working (spiral + list)
| | | * adb55cf  |  Sat 12 Mar 2016  |  img spiral works
| | | * e64e995  |  Sat 12 Mar 2016  |  work in progress
| | |/
| | * fa0e818  |  Fri 11 Mar 2016  |  Pre branch img vid
| | * 83032fd  |  Fri 11 Mar 2016  |  Fixed textfield search default text
      ↪  problem
| | * e6609fe  |  Thu 10 Mar 2016  |  Emails fixed
```

```
| | * 9fecc8e  |  Thu 10 Mar 2016  |  Fixed javascript error problem
| | * 1ce1893  |  Wed 09 Mar 2016  |  Work in progress
| | * 2999784  |  Tue 08 Mar 2016  |  Radio button styles
| | * 844817d  |  Tue 08 Mar 2016  |  Shakespeare working
| | * f6f4e38  |  Tue 08 Mar 2016  |  Changed setupcorpus function (unfinished)
| | * 3cfb7e2  |  Tue 08 Mar 2016  |  Started shakespeare stuff
| | * 5e93e11  |  Fri 19 Feb 2016  |  Added a few cheats
| | * 5daf3b7  |  Wed 17 Feb 2016  |  surface updates
| | * e1f7c12  |  Tue 22 Dec 2015  |  added quotes and shakespeare
| | * 44e6211  |  Sat 31 Oct 2015  |  Stuff for thesis
| | * 9b1ec61  |  Wed 19 Aug 2015  |  Getty works sort of
| | * 71437f6  |  Tue 18 Aug 2015  |  Flickr and Bing work, radio buttons work
| | * 6c552aa  |  Wed 12 Aug 2015  |  Fixed image problem but not video.
| * | 1cbb63d  |  Tue 11 Aug 2015  |  Update textsurfer.py
| |/
| * 0ebff0d  |  Tue 11 Aug 2015  |  Analytics enabled again
| * 703f977  |  Tue 11 Aug 2015  |  Problems solved.
| * 74a1fae  |  Tue 11 Aug 2015  |  About to change l_dict to dict of dict
| * 0935b23  |  Mon 10 Aug 2015  |  BUG FUCKER
| * 4f7d91e  |  Mon 10 Aug 2015  |  Turn debug off
| * 58f0c2b  |  Mon 10 Aug 2015  |  Button styling done
| * 59add58  |  Mon 10 Aug 2015  |  Email problem solved
| *   f1b2d40  |  Sun 09 Aug 2015  |  Merge branch 'Deploy' into thesis
| |\
| | * 435cb2d  |  Sun 09 Aug 2015  |  Deployment works, added analytics
| | * 8a63dc7  |  Sat 08 Aug 2015  |  gunicorn runs locally fine.
| | * 2861407  |  Sat 08 Aug 2015  |  Revert 5f2c957..4026965
| | * 4026965  |  Sat 08 Aug 2015  |  Tests
| * |   8f2eeab  |  Sat 08 Aug 2015  |  Merge branch 'w3' into thesis
| |\ \
| | |/
| | * 5f2c957  |  Sat 08 Aug 2015  |  Stuff
| | * 873153c  |  Fri 07 Aug 2015  |  Tiny cleanup
| | * 05d5760  |  Thu 06 Aug 2015  |  Random Poems and Emailing works
| | * 657126c  |  Wed 05 Aug 2015  |  Random poems work - without links though
| | * 3d31ea9  |  Wed 05 Aug 2015  |  Randomise still only works once, count ok
| | * 5f1d45b  |  Wed 05 Aug 2015  |  Randomise poem works ONCE
| | * c583341  |  Wed 05 Aug 2015  |  Poem subtabs, email poems done
| | * f1b3878  |  Wed 05 Aug 2015  |  Hiding divs
| | * a6939c4  |  Tue 04 Aug 2015  |  huh?
| | * e6b411d  |  Tue 04 Aug 2015  |  Poem emails WORK Fuck YEAH!
| | * 4b6b170  |  Tue 04 Aug 2015  |  Test email
| | * 24e356c  |  Tue 04 Aug 2015  |  Better load icon
| | * e6ae736  |  Tue 04 Aug 2015  |  loading icon version 1
| | * 51b43e2  |  Tue 04 Aug 2015  |  Added 4th pictures
| | * f2d8a83  |  Mon 03 Aug 2015  |  Minor fixes
| * |   1ddb03d  |  Mon 03 Aug 2015  |  Merge branch 'w3' into thesis
| |\ \
| | |/
| | * ca4eab3  |  Mon 03 Aug 2015  |  Pretty good state.
```

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```
| | * 9370334  |  Mon 03 Aug 2015  |  working on list display of images
| | * e1f1ead  |  Mon 03 Aug 2015  |  Stylesheets sorted and cleaned files
| * |   9732d5b  |  Mon 03 Aug 2015  |  Merge branch 'w3' into thesis
| |\ \
| | |/
| | * f0a4c40  |  Sun 02 Aug 2015  |  Minor errors left
| | * 4c94b11  |  Sun 02 Aug 2015  |  Styles ok. still some errors in vids?
| | * 5ab4bb3  |  Sun 02 Aug 2015  |  Videoresults work
| | * d575762  |  Sun 02 Aug 2015  |  Videos works and styled
| | * 906be06  |  Sun 02 Aug 2015  |  Starting videos
| | * 0d29479  |  Sun 02 Aug 2015  |  Images working with occasional error (
        ↪  unicode?)
| | * 8e9f7bf  |  Sun 02 Aug 2015  |  Http response 200
| | * 09706d8  |  Sat 01 Aug 2015  |  Stuff
| | * 57ff730  |  Sat 01 Aug 2015  |  Bing or Flickr not working yet
| | * c85b61d  |  Sat 01 Aug 2015  |  Prep for image results done
| | * 052b55d  |  Sat 01 Aug 2015  |  Starting image results
| | * 4f08696  |  Sat 01 Aug 2015  |  So far so good.
| | * 1ff8370  |  Sat 01 Aug 2015  |  good version
| | * 50f8f00  |  Sat 01 Aug 2015  |  About to play with poem width
| | * ea3de12  |  Fri 31 Jul 2015  |  Styling in progress
| | * f69e4c9  |  Fri 31 Jul 2015  |  Work in progresss
| | * 3c8ae12  |  Fri 31 Jul 2015  |  Work in progress
| | * 616a1b3  |  Fri 31 Jul 2015  |  style start
| |/
| * fafd254  |  Thu 30 Jul 2015  |  Todos
| *   0fc8807  |  Wed 29 Jul 2015  |  Merge branch 'text' into thesis
| |\
| | * 95c2071  |  Wed 29 Jul 2015  |  Minor spacing
| | * 3a9fd4b  |  Wed 29 Jul 2015  |  Rewritten syzygy function
| | * 12afae9  |  Wed 29 Jul 2015  |  todo update
| | * f52186f  |  Wed 29 Jul 2015  |  pp_sent changed based on punctuation
      ↪  marks
| * |   5d69975  |  Wed 29 Jul 2015  |  Merge branch 'text' into thesis
| |\ \
| | |/
| | * a01f935  |  Wed 29 Jul 2015  |  Todo
| | * 489ccf5  |  Wed 29 Jul 2015  |  Up arrows
| | * 6b2736f  |  Wed 29 Jul 2015  |  Title fixes, links etc
| | * f3b874b  |  Wed 29 Jul 2015  |  poems display for less than 14 works
| * |   a58abe2  |  Wed 29 Jul 2015  |  Merge branch 'poetry' into thesis
| |\ \
| | |/
| | * 1654fa5  |  Tue 28 Jul 2015  |  split poem into stanzas from correct
      ↪  files
| | * 0562be7  |  Tue 28 Jul 2015  |  Fixed counts and search clicking
| | * 15940da  |  Tue 28 Jul 2015  |  centre poems work
| | * f9338f1  |  Mon 27 Jul 2015  |  Style fixes
| | * ed81657  |  Mon 27 Jul 2015  |  Tabs done. Need style.
| | * 28939a6  |  Mon 27 Jul 2015  |  3 Forms working with titles
```

```
| | * fe57ba8  |  Mon 27 Jul 2015  |  Change in data structure all_sens
| | * 653c6e6  |  Mon 27 Jul 2015  |  Temp commit
| | * 8fb6423  |  Sun 26 Jul 2015  |  Poem design ok
| | * 6c4f4fc  |  Sun 26 Jul 2015  |  triplet poem working
| | * 0ad1e63  |  Sun 26 Jul 2015  |  3 scroll results working omg
| | * 262c60a  |  Sun 26 Jul 2015  |  sentence scroll clin_sens working
| | * d900391  |  Sun 26 Jul 2015  |  scroll text works on single list
| | * 19b8570  |  Sun 26 Jul 2015  |  working scroll img demo
| | * 74cc973  |  Sat 25 Jul 2015  |  Work in progress
| | * 624bbc2  |  Sat 25 Jul 2015  |  Added more files, hover title works
| * |   8e9257f  |  Sat 25 Jul 2015  |  Merge branch 'poetry' into thesis
| |\ \
| | |/
| | * f1a627b  |  Sat 25 Jul 2015  |  Counts done
| |/
| * 811f38a  |  Sat 25 Jul 2015  |  Fixed origins error
| * 112ab28  |  Sat 25 Jul 2015  |  Got rid of empty results
| * 95f1bc7  |  Sat 25 Jul 2015  |  All three algorithms work
| * eae3139  |  Sat 25 Jul 2015  |  antinomy working
| * 9de06b4  |  Sat 25 Jul 2015  |  Dave and sex works again
| * ce63862  |  Sat 25 Jul 2015  |  Restructure of clinamen
| * a4c3bd8  |  Fri 24 Jul 2015  |  Cleaned up files.
| * 4067361  |  Fri 24 Jul 2015  |  Working mostly
| * 9778834  |  Fri 24 Jul 2015  |  impression works but not clear?
| * d19a52a  |  Fri 24 Jul 2015  |  pp_sent works but not website
| * 1c5d945  |  Fri 24 Jul 2015  |  complete corpus working but slow
| * 7ac8697  |  Wed 22 Jul 2015  |  Count works properly.
| * 9b318e1  |  Wed 22 Jul 2015  |  Works.
| * 22d5e9d  |  Wed 22 Jul 2015  |  Added to library
| * ae77a28  |  Mon 20 Jul 2015  |  templates loop not quite right
| * b8ba9b7  |  Mon 20 Jul 2015  |  Almost working. template needs fix
| * 47b2766  |  Mon 20 Jul 2015  |  Cleaned corpus files
| * 71e7153  |  Fri 17 Jul 2015  |  Library added and simple search works
| * 95aed8a  |  Thu 16 Jul 2015  |  Library setup Schwob
| * a260bec  |  Tue 14 Jul 2015  |  Do some stuff to library
| * 9ead88b  |  Tue 14 Jul 2015  |  Print first 10 words of each book
| * 47a5ae3  |  Tue 14 Jul 2015  |  Start for library
| * c99b5ff  |  Wed 24 Jun 2015  |  Added more printouts
| * daf6a5d  |  Wed 24 Jun 2015  |  Added printouts
|/
* fa3ffc7  |  Fri 22 May 2015  (tag: v3.0) |  Updated Readme for IOCT server
* 2d51804  |  Sat 21 Mar 2015  |  added algorithms summary
* 81c1b12  |  Thu 31 Jul 2014  |  pata.fania.eu
* 7545e3e  |  Mon 28 Jul 2014  |  Slight style change
* b5191a7  |  Sun 27 Jul 2014  |  Readme
* 2b3be93  |  Sun 27 Jul 2014  |  readme change
* 97847d9  |  Sun 27 Jul 2014  |  Minimally responsive now.
* 8e1b77a  |  Sun 27 Jul 2014  |  Updated nltk to 3.0.0b1
* ce9b9b6  |  Sun 27 Jul 2014  |  Added macreqs
* 34c883a  |  Sun 27 Jul 2014  |  About edit and WINREQS
```

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* 7a9432b  |  Sat 26 Jul 2014  |  Submenu for About
* 76ba522  |  Sat 26 Jul 2014  |  Added autofocus for search boxes
* c1c0f83  |  Sat 26 Jul 2014  |  Fixed mac word net error
* 6efe43c  |  Wed 16 Jul 2014  |  stuff
* 554b354  |  Wed 16 Jul 2014  |  Changed error bug link style
* 6aabd7b  |  Wed 16 Jul 2014  |  Fixed typos in quotes, changed errors
* e7f40f3  |  Wed 16 Jul 2014  |  Added more quotes
* 84561d7  |  Tue 15 Jul 2014  |  Favicon, errors
* 593b0c0  |  Mon 14 Jul 2014  |  Quotes
* 2915771  |  Sun 13 Jul 2014  |  Added Icons. Style changes.
* 7eb40d0  |  Sun 13 Jul 2014  |  Inline links now working.
* 9077ed2  |  Sun 13 Jul 2014  |  So far so good. Working nicely.
* 13112b7  |  Sat 12 Jul 2014  |  Style for p02 and p03. Golden spiral test.
* c911264  |  Sat 12 Jul 2014  |  Fixed unicode problem, changes file structure
       ↪  .
* 8df543b  |  Sat 12 Jul 2014  |  Updated TODO
* eeb9f59  |  Sat 12 Jul 2014  |  Updated TODO
* b1c6d68  |  Sat 12 Jul 2014  |  Added quotes, scramble logo, jquery
* 20bac1c  |  Sat 12 Jul 2014  |  Removed pip build folder
* f36a498  |  Sat 12 Jul 2014  |  Random quotes working but word net seems
       ↪  bugged
* 54d09e2  |  Sat 12 Jul 2014  |  More style, content and structure
* 462010b  |  Sat 12 Jul 2014  |  p01 changes to style
* 646c38d  |  Fri 11 Jul 2014  |  Style
* bf5f8bf  |  Fri 11 Jul 2014  |  Rotating spiral :)
* 08eff76  |  Thu 10 Jul 2014  |  More style
* bb3f1e5  |  Thu 10 Jul 2014  |  Changed style and venv
* 4190994  |  Wed 09 Jul 2014  |  P01 working. Added style.
* d427ff1  |  Wed 09 Jul 2014  |  Deleted files
*   6251eae  |  Wed 09 Jul 2014  |  Merge branch 'master' of https://github.com
       ↪  /Fania/newpata
|\
* | c9eb78b  |  Wed 09 Jul 2014  |  Reinstalled venv
| * fb54978  |  Wed 09 Jul 2014  |  proto01 sort of working
| * 6547cc5  |  Wed 09 Jul 2014  |  get and post working ok
|/
*   81a3eec  |  Tue 08 Jul 2014  |  Merge branch 'master' of https://github.com
       ↪  /Fania/newpata
|\
* | 5801f70  |  Tue 08 Jul 2014  |  Few updates
| * bf40b91  |  Tue 08 Jul 2014  |  pip installed nltk, some fixes
| * 3ced858  |  Tue 08 Jul 2014  |  Changed files around. Multiple pages now
       ↪  working.
| * 34da770  |  Tue 08 Jul 2014  |  Added wenv for windows
|/
* 809ac8c  |  Mon 07 Jul 2014  |  Cleanup and readme changes
* 3f06260  |  Mon 07 Jul 2014  |  Edited readme again
* c721b33  |  Mon 07 Jul 2014  |  Edited readme
* ffbdb4b  |  Mon 07 Jul 2014  |  Edited readme
* 8870b3d  |  Mon 07 Jul 2014  |  Added gitignore file
```

```
* ba1a9c2  |  Mon 07 Jul 2014  |  Second commit
* 244c4b3  |  Mon 07 Jul 2014  |  First commit
* 4789ead  |  Sun 06 Jul 2014  |  Before merge with 2.0
* c4d8ef2  |  Wed 15 Aug 2012  |  Removed old files, added new stuff
* 8cdd5ae  |  Wed 15 Aug 2012  |  Before pata 2
* cb2afbb  |  Wed 15 Aug 2012 (origin/master, origin/HEAD) |  small changes
* d78b916  |  Fri 15 Jun 2012  |  gitignore
* 6ff5630  |  Tue 14 Aug 2012  |  readme updates
* c364398  |  Tue 14 Aug 2012 (tag: 1.5) |  version 1.5 stuff
*   a541df9  |  Thu 28 Jun 2012  |  fixed conflict
|\
| * 4cece9a  |  Thu 28 Jun 2012 (version15branch) |  moved files again
| * df252a4  |  Mon 16 May 2016 (Version_1.5/master) |  Bing not working yet
| * 6e5b8ac  |  Mon 13 Aug 2012  |  Linked to prototype01's syzygy function.
| * 8188da6  |  Mon 13 Aug 2012  |  Fixed sizes in spiral for images.
| * de742c0  |  Mon 13 Aug 2012  |  Spirals for vid and img working.
| * 1095af7  |  Mon 13 Aug 2012  |  Bing images now display as 150x150 properly
| * fcbf1a2  |  Thu 09 Aug 2012  |  Minor changes to prototype 02
| * 803a364  |  Thu 09 Aug 2012  |  git ignore fix
| * 32ff91f  |  Thu 09 Aug 2012  |  git ignore fix
| * aa1959e  |  Tue 07 Aug 2012  |  git ignore added
| * 6176e9a  |  Tue 07 Aug 2012  |  none
| * f39323a  |  Tue 07 Aug 2012  |  gitattributes change
| * 35dac54  |  Mon 06 Aug 2012  |  Revert "?"
| * 386df83  |  Mon 06 Aug 2012  |  ?
| * d3adb11  |  Fri 03 Aug 2012  |  Added Bing image search to the flickr
      ↪  search
| * 2258b53  |  Fri 27 Jul 2012  |  Small fixes to how everything works.
| * 87738e1  |  Fri 27 Jul 2012  |  Added Translator functionality.
| * aff96b1  |  Thu 26 Jul 2012  |  Added Youtube search functionality
| * fd68ace  |  Thu 26 Jul 2012  |  Added prototype02 flickr search
      ↪  functionality
| * 4d827c9  |  Thu 05 Jul 2012  |  Added structure to switch between
      ↪  prototypes
* | 637d9f8  |  Thu 28 Jun 2012  |  edited readme
* | 01b7bfa  |  Thu 28 Jun 2012 (tag: 1.0) |  version 1 stuff
* |   7b2cf7f  |  Wed 27 Jun 2012  |  fix conflicts
|\ \
| * | 53bb1e5  |  Mon 16 May 2016 (Version_1/master, version1branch) |
      ↪  Version 1 working again
| * | 47b00d9  |  Sun 15 May 2016  |  Upgrade 2016
| |/
| * 527e7e1  |  Wed 27 Jun 2012  |  Normalize line endings
| * ee01b37  |  Wed 27 Jun 2012  |  Mini changes to readme files.
| * 3c242a0  |  Wed 27 Jun 2012  |  Removed some spaces.
| * 041f8ad  |  Thu 10 May 2012  |  Fixed plural s
| * 5a58ee7  |  Thu 10 May 2012  |  Changes to links and button, all works on
      ↪  single words.
| * 97d5e25  |  Thu 10 May 2012  |  Added icon
| * 84c59c2  |  Thu 10 May 2012  |  Minor changes to button and wordings
```

```
| * 9177388  |  Wed 09 May 2012  |  Making results keywords links
| * 3dc5019  |  Wed 09 May 2012  |  Changed stopwords handling
| * 81b5183  |  Wed 09 May 2012  |  Test
| * 63588d1  |  Wed 09 May 2012  |  First commit of working prototype v0.1
| * c52f846  |  Wed 09 May 2012  |  test
| * 4a04baa  |  Wed 09 May 2012  |  Initial commit of Django skeleton.
* 65bade4  |  Sun 06 May 2012  |  readme update
* 8365be0  |  Sun 06 May 2012  (tag: 0.5) |  New files for patatype
* e987fb6  |  Sat 05 May 2012  |  Added reqs
* 775e0dc  |  Sat 05 May 2012  |  Fixing venv
*   4854a02  |  Mon 16 May 2016  |  Gitignore
|\
| * d45d5b5  |  Sun 15 May 2016  |  Initial commit
* 83991a6  |  Sat 05 May 2012  (tag: 0.2) |  Added surfer 2
* c55bb54  |  Sat 05 May 2012  (tag: 0.1) |  test message
* 40716ba  |  Sat 05 May 2012  |  First few files
* 701d5ba  |  Sat 05 May 2012  |  Initial commit
```

D.2 THESIS REPOSITORY

```
* 25a4ecf  |  Sat 05 Nov 2016  (HEAD -> master, origin/master, origin/HEAD) |
      ↪  Analysis done
* 723aaf3  |  Sat 05 Nov 2016  |  Analysis wip
* 7516ac9  |  Thu 03 Nov 2016  |  that difficult analysis section wip
* ad117f8  |  Thu 03 Nov 2016  |  Application chapter done
* 43d1356  |  Wed 02 Nov 2016  |  Spelling, Application stuff
* d09f664  |  Wed 02 Nov 2016  |  Implementation done!
* 08af130  |  Tue 01 Nov 2016  |  Impl img and vid and design done
* f3230d4  |  Mon 31 Oct 2016  |  Impl Img Vid wip
* a78b091  |  Mon 31 Oct 2016  |  Implementation clinamen section
* e87b804  |  Sun 30 Oct 2016  |  Implementation up to Text section done
* 2ea5ade  |  Sat 29 Oct 2016  |  Implementation stuff wip
* 5e67379  |  Thu 27 Oct 2016  |  Implementation formatting
* 36a561b  |  Thu 27 Oct 2016  |  Sort of finished interpretation chapter
* 4f859b5  |  Wed 26 Oct 2016  |  Interpretation first half
* 3a5eaef  |  Wed 26 Oct 2016  |  Foundations done
* a1a4856  |  Wed 26 Oct 2016  |  Foundations restructure
* 8125d14  |  Tue 25 Oct 2016  |  Eval stuff almost done
* 3635502  |  Tue 25 Oct 2016  |  Evaluation first pass done
* 750f67b  |  Tue 25 Oct 2016  |  Fixed mmce tikz
* e2a8bcf  |  Mon 24 Oct 2016  |  MMCE tikz fuck yeah
* 577f4f3  |  Sun 23 Oct 2016  |  Finished Technology
* a312c62  |  Sun 23 Oct 2016  |  wip
* b57c5b2  |  Thu 20 Oct 2016  |  tech and eval wip
* 20c07bc  |  Wed 19 Oct 2016  |  tech nlp stuff
* b7d8f89  |  Tue 18 Oct 2016  |  NLP restructure and regex section
* 3183c78  |  Tue 18 Oct 2016  |  started NLP
* 0ca80ab  |  Tue 18 Oct 2016  |  IR section 99% done
* 92de3d5  |  Mon 17 Oct 2016  |  tech vector model wip
* dd09b7a  |  Sun 16 Oct 2016  |  Tech TF-IDF table and stuff
```

```
*   bb1500c  |  Sun 16 Oct 2016  |  Merge branch 'master' of github.com:Fania/
    ↪  Thesis
|\
* | 7a87ae6  |  Sun 16 Oct 2016  |  Merge problem?
| * 6e788be  |  Sun 16 Oct 2016  |  Technoprogress
|/
* bf59bd8  |  Sat 15 Oct 2016  |  Added all refs for corpus
*   ff100b9  |  Sat 15 Oct 2016  |  Merge branch 'master' of github.com:Fania/
    ↪  Thesis
|\
* \   cc80c3f  |  Sat 15 Oct 2016  |  Merge commit
|\ \
| | * 93a3b5d  |  Fri 14 Oct 2016  |  removed test
| |/
| * df04179  |  Fri 14 Oct 2016  |  Test commit with ssh
| * e2f0700  |  Fri 14 Oct 2016  |  Work in progress
| * 71c4e27  |  Thu 13 Oct 2016  |  Added email from museepata
| * 100badf  |  Wed 12 Oct 2016  |  Tikz diagrams, creativity and technology
| * 25989c5  |  Tue 11 Oct 2016  |  creativity almost done
| * dbdebe1  |  Tue 11 Oct 2016  |  added here
| * d4cb222  |  Tue 11 Oct 2016  |  Creativity chapter progress
| * 7ccb304  |  Mon 10 Oct 2016  |  fixed refs in four c
| * 91cda6b  |  Mon 10 Oct 2016  |  Creativity up to four c's plus figure
| * 81c989c  |  Mon 10 Oct 2016  |  Fixed sourceatright font and size
| * 43e43b3  |  Sun 09 Oct 2016  |  Pataphysics chapter complete
| * 606f640  |  Sun 09 Oct 2016  |  Oulipo table
| * e844bcf  |  Thu 06 Oct 2016  |  pataphysics edit
| * 6311124  |  Thu 06 Oct 2016  |  Pataphysics polish
* | a47a79a  |  Sun 02 Oct 2016  |  mini change
|/
* 30cb89f  |  Tue 13 Sep 2016  |  Mini changes
* 002a993  |  Thu 25 Aug 2016  |  ai chapter
* 672f4dd  |  Thu 25 Aug 2016  |  stuff
* d83d382  |  Tue 23 Aug 2016  |  turing notes
* ebd6051  |  Sat 20 Aug 2016  |  Added refs
* b898d08  |  Wed 17 Aug 2016  |  creat int arguments
* 0c2e560  |  Tue 16 Aug 2016  |  Moved AI section to test temporarily
* e600de0  |  Mon 15 Aug 2016  |  searle
* 0cbac15  |  Mon 15 Aug 2016  |  analysis ai stuff
* cb917a9  |  Mon 15 Aug 2016  |  Moved formalisation to implementation
* 9568a23  |  Sun 14 Aug 2016  |  Formalisation stuff, clinamen
* f936370  |  Fri 12 Aug 2016  |  Stuff
* 29a274d  |  Fri 12 Aug 2016  |  Changed nums
* b03c24b  |  Fri 12 Aug 2016  |  Moved all table captions
*   8b533f6  |  Fri 12 Aug 2016  |  Merge branch 'master' of https://github.com
    ↪  /Fania/Thesis
|\
* | f055732  |  Fri 12 Aug 2016  |  Full compile
| * 568ff22  |  Fri 12 Aug 2016  |  Added meronym prints
|/
```

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* 4c0db9d  |  Thu 11 Aug 2016  |  mini changes
* df9bd05  |  Sun 07 Aug 2016  |  work on api stuff
* 5cdb101  |  Sat 06 Aug 2016  |  Acronyms french fixed
* 959288f  |  Fri 05 Aug 2016  |  link to toc works
* e105d81  |  Fri 05 Aug 2016  |  floats fixed to [!htbp]
* f7b3466  |  Fri 05 Aug 2016  |  style fixes
* b28f27e  |  Thu 04 Aug 2016  |  analysis stuff end of day
* f9c6732  |  Tue 02 Aug 2016  |  Sentences work
* 445e164  |  Sun 31 Jul 2016  |  analysis stuff
*   7adbd90  |  Sun 31 Jul 2016  |  merge commit
|\
* | 94d3560  |  Sun 31 Jul 2016  |  laptop commit
| * 4f3de4c  |  Sun 31 Jul 2016  |  commit from PC
|/
*   6068b75  |  Fri 29 Jul 2016  |  merge commits
|\
* | bdb45fa  |  Fri 29 Jul 2016  |  throwaway
| * 1c794e7  |  Fri 29 Jul 2016  |  update
| * 546c28e  |  Thu 28 Jul 2016  |  added Andrews feedback
| * a642999  |  Wed 27 Jul 2016  |  full compile
| * fbccdf7  |  Tue 26 Jul 2016  |  end of day commit - numbers
| *   363a483  |  Tue 26 Jul 2016  |  fixes
| |\
| |/
|/|
| * f6ee5eb  |  Tue 26 Jul 2016  |  Fixed partial TOCs spacing problem
* | 7c2073e  |  Tue 26 Jul 2016  |  test
|/
* 3acf223  |  Tue 26 Jul 2016  |  analysis work
* 4f04c38  |  Mon 25 Jul 2016  |  small fix
* baaa22b  |  Mon 25 Jul 2016  |  introduction and inspiration first draft
* 593d887  |  Mon 25 Jul 2016  |  progress
* e571c15  |  Mon 25 Jul 2016  |  Poetry formatting
* 236b88a  |  Sun 24 Jul 2016  |  forest stuff
* 484fae7  |  Sat 23 Jul 2016  |  table anayslis stuff
* 624d77d  |  Fri 22 Jul 2016  |  tabu width sorted
* 4917a5c  |  Tue 19 Jul 2016  |  Restructure of analysis
* 6435ea3  |  Tue 19 Jul 2016  |  work in progress
* 44effab  |  Sun 10 Jul 2016  |  end of day 3
* 62f6a02  |  Sun 10 Jul 2016  |  10000 day 3
* 5d2deae  |  Sun 10 Jul 2016  |  interim commit day 3
* f0cc780  |  Sat 09 Jul 2016  |  end of day 2
* cca6bfe  |  Fri 08 Jul 2016  |  end of day one
* d7869b7  |  Fri 08 Jul 2016  |  full compile
* accfe9d  |  Fri 08 Jul 2016  |  Ready for Boot Camp
* 0dd4448  |  Sat 02 Jul 2016  |  stuff
* 3c11939  |  Thu 30 Jun 2016  |  Progress in methodology
* cd6809a  |  Wed 29 Jun 2016  |  Start on Methodology chapter
* 41811c3  |  Tue 21 Jun 2016  |  Planning
* 9488f72  |  Tue 07 Jun 2016  |  Added interludes and toc design
```

```
* fca28e9  |  Mon 23 May 2016  |  typos, corpus
* edba811  |  Sat 21 May 2016  |  Impl folder structure
* 134f154  |  Fri 20 May 2016  |  started restructure of implementation chapter
* e12cd57  |  Tue 17 May 2016  |  Added gource image
* 93f2726  |  Thu 05 May 2016  |  Minor fixes
* 5ef8cc7  |  Thu 05 May 2016  |  emph change
* edfc6f9  |  Wed 04 May 2016  |  Acronyms sorted
*   293a05f  |  Wed 04 May 2016  |  Merge branch 'master' of https://github.com
      ↪  /Fania/Thesis
|\
* | 8fe7a6b  |  Wed 04 May 2016  |  Typos
| * c92d9ec  |  Wed 04 May 2016  |  small update
| * be93e01  |  Wed 04 May 2016  |  Added Latex Error Link
|/
* 192e239  |  Wed 04 May 2016  |  Typos
* b2383b5  |  Tue 03 May 2016  |  quotations are now british
* 33d7866  |  Mon 02 May 2016  |  gitignore update
* 8123ebc  |  Sun 01 May 2016  |  VSCode stuff
* 2b65561  |  Sun 01 May 2016  |  VS Code test
* bacdc47  |  Wed 27 Apr 2016  |  Programming Culture stuff
* d72fdcd  |  Tue 26 Apr 2016  |  Structure of final chapters
* cd35a52  |  Mon 25 Apr 2016  |  Fixed toc numwidth problem
* 8219928  |  Mon 25 Apr 2016  |  fixed part design
* 249091f  |  Thu 21 Apr 2016  |  Interpretation edits
* 8a070bd  |  Fri 08 Apr 2016  |  Interpretation stuff
* b171625  |  Thu 07 Apr 2016  |  More work on Interpretation
* 29b318a  |  Mon 04 Apr 2016  |  Structured Interpretation chapter
* c57b825  |  Sun 03 Apr 2016  |  Add zombies to chapter
* 6231f8a  |  Sun 03 Apr 2016  |  Added publications
* b15063d  |  Tue 16 Feb 2016  |  Test compilation for Surface
* 9947594  |  Wed 03 Feb 2016  |  Added new publication
* 0963f28  |  Sat 09 Jan 2016  |  Draft 01 for Sophy
* 41481f9  |  Wed 06 Jan 2016  |  Work in Progress
* 57c367b  |  Tue 05 Jan 2016  |  Todo fixing progress
* f6f974f  |  Mon 04 Jan 2016  |  Restructuring
* db7ca77  |  Sat 02 Jan 2016  |  More interpretation changes
* daa7560  |  Sat 02 Jan 2016  |  Interpretation progress
* 6562882  |  Wed 30 Dec 2015  |  evaluation draft
* 214e654  |  Tue 29 Dec 2015  |  Stuff, marginnote, TOC, Foundations
* 366f15d  |  Mon 28 Dec 2015  |  Foundations progress
* d792b19  |  Tue 22 Dec 2015  |  Foundations progress
* 407e1b5  |  Tue 22 Dec 2015  |  Draft methodology chapter
* 6b38154  |  Fri 11 Dec 2015  |  spirals and poems added
* 8a01e8f  |  Thu 10 Dec 2015  |  intro, insp design
* f5bc906  |  Thu 10 Dec 2015  |  Intro and Inspir almost done.
* e57d672  |  Tue 08 Dec 2015  |  Added inspirations chapter.
* ecad3b9  |  Tue 01 Dec 2015  |  Spiral file seperate
* d71c213  |  Thu 26 Nov 2015  |  Wordcount works
* e0d9975  |  Wed 25 Nov 2015  |  backup
* a7ae537  |  Tue 17 Nov 2015  |  Added screenshots in responsive design
```

```
* 47f724a  |  Tue 10 Nov 2015  |  stuff
* afce56f  |  Fri 06 Nov 2015  |  methodology stuff
* e462c69  |  Tue 03 Nov 2015  |  work in progress
* e16085b  |  Sun 01 Nov 2015  |  Updated publications appendix
* 5ca0ee5  |  Mon 05 Oct 2015  |  work in progress
* 2887469  |  Wed 30 Sep 2015  |  Partial ToC subsections
* da0f3f9  |  Wed 30 Sep 2015  |  Fucking vertical space in ptoc works!
* 0eeb9ca  |  Tue 29 Sep 2015  |  Chapter contents ok
* c274fd0  |  Tue 29 Sep 2015  |  ToC per chapter
* 3c23f12  |  Thu 24 Sep 2015  |  fixed stuff, written stuff
* 2b2e57c  |  Wed 23 Sep 2015  |  fixed some issues and added content
* 176392f  |  Tue 22 Sep 2015  |  todonotes are back
* 2fafb08  |  Sun 20 Sep 2015  |  Migrated to memoir
* 3566974  |  Sun 13 Sep 2015  |  Work in progress
* 37e02cb  |  Sat 12 Sep 2015  |  Described code, minted fix
* 86d0ffc  |  Fri 11 Sep 2015  |  Work in progress
* f3999f4  |  Mon 07 Sep 2015  |  Changed over to minted
* 6004ebd  |  Sat 05 Sep 2015  |  Fixed syntax highlight + wrote a lot
* bf74cca  |  Thu 03 Sep 2015  |  Fixed another error
* 8e03c17  |  Thu 03 Sep 2015  |  Fixed some errors
* 282be4b  |  Thu 03 Sep 2015  |  Work in progress
* 78920e7  |  Thu 27 Aug 2015  |  Work in progress
* aeaeaff  |  Wed 26 Aug 2015  |  Small fixes
* 571d396  |  Wed 26 Aug 2015  |  Chktex linter pass
* 5c1c21e  |  Fri 31 Jul 2015  |  Todo
* d9f1482  |  Tue 14 Jul 2015  |  Tech, TDM example
* 2778fed  |  Sat 11 Jul 2015  |  Few things, I did.
* ba2187a  |  Thu 09 Jul 2015  |  IR TF IDF stuff
* c1ed5af  |  Wed 08 Jul 2015  |  Things
* b64eb1f  |  Tue 07 Jul 2015  |  Added images
* 778aa4a  |  Fri 26 Jun 2015  |  Stuff
* 25b4e09  |  Thu 25 Jun 2015  |  Integrating printouts into text
* ef86a5b  |  Wed 24 Jun 2015  |  Printouts
* 8f17c8e  |  Wed 24 Jun 2015  |  Added to read
* d9dc6b9  |  Sun 21 Jun 2015  |  Tech, Description
* e791530  |  Fri 19 Jun 2015  |  Tech stuff figures
* f373561  |  Wed 17 Jun 2015  |  Technology, exploratory search
* eb3b368  |  Wed 17 Jun 2015  |  Inkscape graphics
* aee67b1  |  Mon 15 Jun 2015  |  Tech restructure
* 1ed41ee  |  Mon 15 Jun 2015  |  Changed import to include
* 5ab2351  |  Sun 14 Jun 2015  |  Testing word count
* 09b8e9d  |  Sun 14 Jun 2015  |  Aaaand more structure and bib
* a7a7ff2  |  Fri 12 Jun 2015  |  Even More Structure
* e89688b  |  Wed 10 Jun 2015  |  Re-Structure
* 7d73b68  |  Wed 10 Jun 2015  |  Restructuring
* 2b1b713  |  Wed 10 Jun 2015  |  Work on creativity
* adfb005  |  Mon 08 Jun 2015  |  Working on creativity chapter
* d7f1cf7  |  Sun 07 Jun 2015  |  Readme
* fc1e228  |  Sat 06 Jun 2015  |  Creativity chapter
* ac3ff1c  |  Sat 06 Jun 2015  |  more changes
```

```
* b5af173  |  Wed 03 Jun 2015  |  Fonts test
* c8a7d76  |  Tue 26 May 2015  |  More edits, writing, styling.
* 077d8e1  |  Mon 25 May 2015  |  Writing stuff START
* 4152a3e  |  Sat 23 May 2015  |  conflict sorted?
* 50cbb3a  |  Fri 22 May 2015  |  Update
* 0e8a0f7  |  Wed 13 May 2015  |  Toc changes
* bb3c091  |  Mon 20 Apr 2015  |  show wireframe
* 1e082fa  |  Sat 18 Apr 2015  |  Update readme.md
* f5b7c8e  |  Sat 18 Apr 2015  |  Update readme.md
* 3129135  |  Sat 18 Apr 2015  |  Added todo, updated error section in readme
* b15d2ae  |  Sat 18 Apr 2015  |  Added todos
* 0d8235f  |  Sat 18 Apr 2015  |  Style and error fixes
* 73bece1  |  Fri 17 Apr 2015  |  Update readme.md testing task lists
* ceaba92  |  Fri 17 Apr 2015  |  Update readme.md
* b8451fc  |  Fri 17 Apr 2015  |  Added todo
* 188747f  |  Fri 17 Apr 2015  |  Spacing, Equations, Margins
* 60216ba  |  Wed 15 Apr 2015  |  marginpar
* d4640b4  |  Wed 15 Apr 2015  |  image
* dfc9b45  |  Wed 15 Apr 2015  |  image sizes and names
* 5c2f753  |  Wed 15 Apr 2015  |  readme changes
* a1a1e31  |  Tue 14 Apr 2015  |  Added read
* 0dc0f77  |  Mon 13 Apr 2015  |  Initial commit
```

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