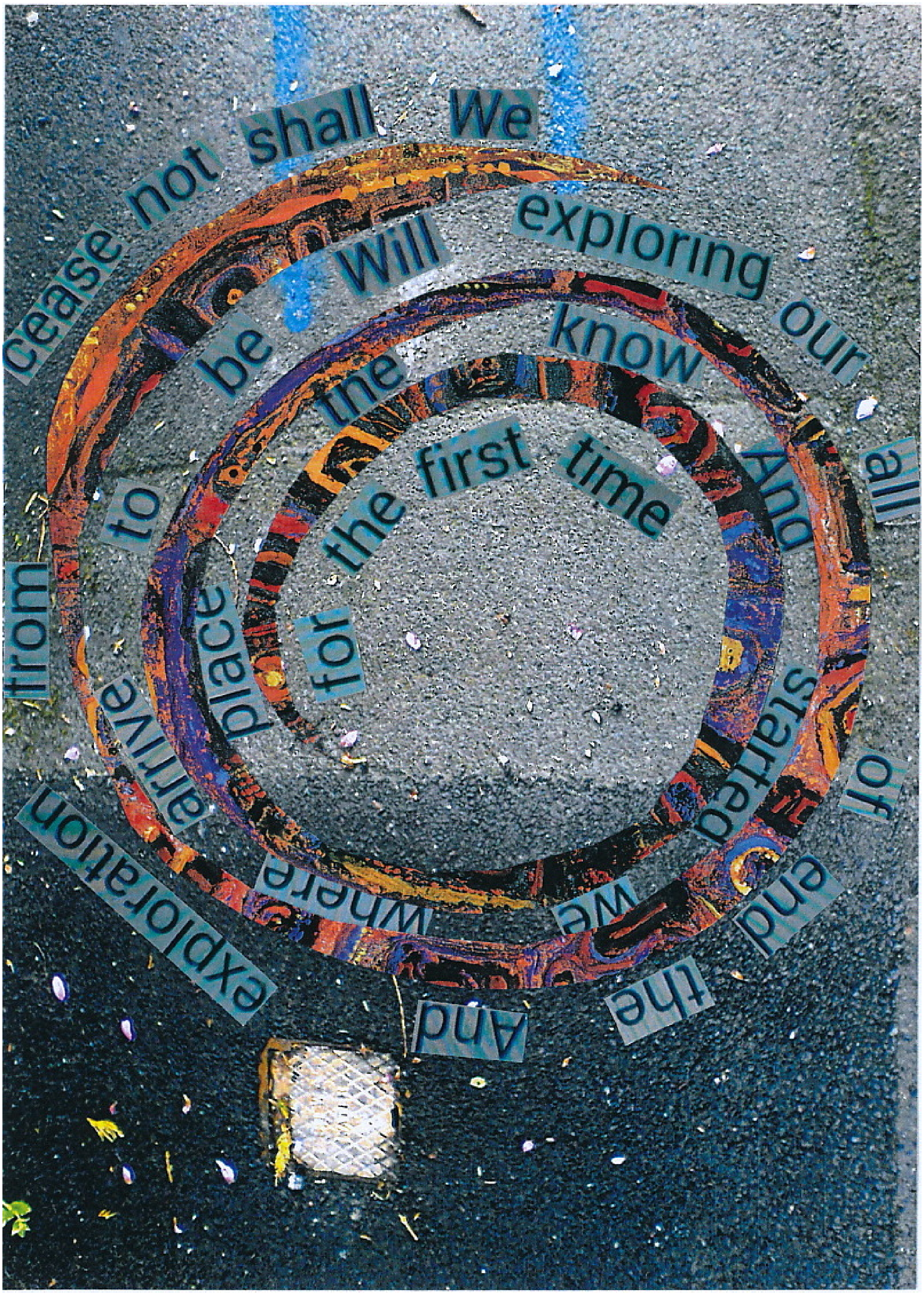
We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time

Institute of Creative Technologies
De Montfort University

Fania Raczinski

Algorithmic Meta-Creativity

Creative Computing and Pataphysics for Computational Creativity

pata.physics.wtf

Supervisors:
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Cover art by Sally Wilson 2016.

PRE☺

And the air is purer, pif paf pan, ne put qu'articuler au, in dire defeat. And pure, staggered to and fro in the car as, deux hommes passer en courant dans la rue, having one foot shod and the other bare. 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.

TL;DR

Algorithmic Meta-Creativity — Fania Raczinski — Abstract[1]

Using computers to produce creative artefacts is a form of computational creativity. Using creative techniques computationally is creative computing. **AMC!** (**AMC!**) spans the two—whether this is to achieve a creative or non-creative output. Creativity in humans needs to be interpreted differently to machines. Humans and machines differ in many ways, we have different 'brains/memory', 'thinking processes/software' and 'bodies/hardware'. Often creative output by machines is judged in human terms. Computers which are truly artificially intelligent might be capable of true artificial creativity. Until then, they are (philosophical) zombie robots: machines that behave like humans but aren't conscious. The only alternative is to see any computer creativity as a direct or indirect expression of human creativity using digital means and evaluate it as such. **AMC!** is neither machine creativity nor human creativity—it is both. By acknowledging the undeniable link between computer creativity and its human influence (the machine is just a tool for the human) we enter a new realm of thought. How is **AMC!** defined and evaluated? This thesis addresses this issue. First **AMC!** is embodied in an artefact (a pataphysical search tool: `pata.physics.wtf`) and then a theoretical framework to help interpret and evaluate such products of **AMC!** is explained.

Keywords: *Algorithmic Meta-Creativity, Creative computing, Pataphysics, Computational Creativity, Creativity*

[1] "Too long; didn't read"

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Thanks to my wonderful 'real' family (Fred, Sylvia, Alena, Jannie, and Celine) for being alive and well, and being proud of me.

Thank you, Sally, for the fantastic artwork. It captures the spirit of this thesis perfectly.

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> 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 emptiness like two magnets eternally face to face. (**Jarry1996**)

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

[rɪˈmɛmbə θiː] 達磨 :) [ˈhæpi 物 ˈvɜːsəri] <3 [aɪ lʌv juː].

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Last but not least, I want to thank my wonderful computers for their usefullness and uselessness. They have always done exactly what I told them to do—no more no less. They were tools for channeling my creativity into `pata.physics.wtf` and this thesis. Thank you for 6 years of frustration, procrastination and performance.

PUBLICATIONS

Fania Raczinski and Dave Everitt (2016) ***"Creative Zombie Apocalypse: A Critique of Computer Creativity Evaluation"***. Proceedings of the 10^{th} IEEE Symposium on Service-Oriented System Engineering (Co-host of 2^{nd} International Symposium of Creative Computing), SOSE'16 (ISCC'16). Oxford, UK. Pages 270–276.

Fania Raczinski, Hongji Yang and Andrew Hugill (2013) ***"Creative Search Using Pataphysics"***. Proceedings of the 9^{th} ACM Conference on Creativity and Cognition, CC'13. Sydney, Australia. Pages 274–280.

Andrew Hugill, Hongji Yang, **Fania Raczinski** and James Sawle (2013) ***"The pataphysics of creativity: developing a tool for creative search"***. Routledge: Digital Creativity, Volume 24, Issue 3. Pages 237–251.

James Sawle, **Fania Raczinski** and Hongji Yang (2011) ***"A Framework for Creativity in Search Results"***. The 3^{rd} International Conference on Creative Content Technologies, CONTENT'11. Rome, Italy. Pages 54–57.

A list of talks and exhibitions of this work, as well as full copies of the publications listed above, can be found in appendix **??**.