

# Where Creativity meets the Web: a pataphysical partnership

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**This is the text of a presentation given as part of the plenary panel on Creativity and the Web chaired by Andrew Hugill, during the WWW2016 conference, Montréal, April 2016.**

## I. INTRODUCTION

Hello everybody and welcome to this special panel on Creativity and the Web. I am grateful to the organisers and to Jim Hendler in particular for the invitation to present this panel. My name is Andrew Hugill, and I am a musical researcher, computer scientist and literary scholar who has been working creatively using the internet since before there was a world wide web! I remain fascinated by its potential and continue to ask the question: how can the web be used creatively, how can we adapt to this new technology?

Now, this sets an important basis for this panel. We are not discussing here the use of the web as merely a dissemination platform, although that is of course part of the process. What interests us is the creative potential of this new technology and how it may influence the creation of works that exist on- or off-line.

With that in mind, I have assembled some very different practitioners to describe their approaches to this challenge. Line McMurray is primarily a writer and visual artist, Michel de Sévigné is principally a visual artist who has worked with information, Tanja Hollander is a photographer who works with social media and I am a composer and musician who has done many projects in and on the web. I will ask each of them to introduce themselves in much more detail shortly. The format of the panel is that each artist will give a 10-minute presentation about their work, after which there will be a general discussion between us. There may be time during that final 20 minutes for some questions from the floor.

Before we launch into the presentations, however, I should say a few words about the full title of this panel: where creativity meets the web: a *pataphysical* partnership. This panel has emerged, at least in part, from the co-located event *Imagination WWW'P*, that was held over the past couple of days. This was staged by the Académie québécoise de la 'Pataphysique. The word pataphysics needs a little explanation. I would like to invite Linda Kileger Stillman, one of the world experts on the subject, to give a short summary.

(Linda Klieger Stillman on 'Pataphysics)

What has this got to do with the web? Well, we can observe that many pataphysical thinkers, from Jorge Luis Borges to Jean Baudrillard, from Raymond Roussel to Umberto Eco, have anticipated ideas that are current in web science. But, more importantly, pataphysics represents an extreme challenge to the question of the way the web is engineered, which is predominantly (and necessarily) objective, disambiguated, and generalised.

Creativity relies upon play, upon divergent thinking, upon ambiguity, upon the exceptional and the contradictory and the particular. In many ways, it is the expression of a tacit knowledge – that is to say, things we know but we do not know how or why we know them. Web technology is excellent at handling propositional knowledge, i.e. facts. It is, thanks to the semantic web, becoming better at handling procedural knowledge too, expressed in the relationships between things. But tacit knowledge is still a matter for humans alone. Pataphysics provides a pathway to mess with, or creatively abuse, the web, by inserting surprising deviations, unexpected alignments, anomalous conditions, or explosive contradictions into the very fabric and architecture of the technology. It is these aspects that we hope to explore in our presentations.

## II. PRESENTATION

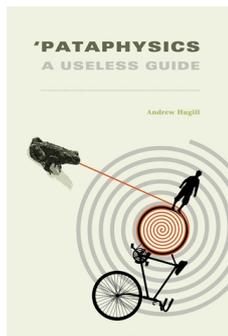
### Centre for Creative Computing Bath Spa University, UK



I direct the Centre for Creative Computing at Bath Spa University in the UK. Our mission is to try to work with computers to improve human creativity. We therefore seek to reconcile the subjective and ambiguous nature of the human being with the need for objective, disambiguated precision of computer systems.

This has included much work on and with the web, and I wanted to describe a couple of examples to you to give you an idea of how we have approached the technology and what artistic results we have produced.

### 'Pataphysics: A Useless Guide (MIT Press)



In 2013 I published a book with MIT Press entitled *'Pataphysics: A Useless Guide* in which I set out some of the main features of the science. There are a number of pataphysical operations which have proved useful in trying to get the technology to behave in ways in which it was not intended. I call this "creative abuse" and it is one of the main ways by which creativity is released. Think of musicians

experimenting with their instruments, or the whole tradition of experimentation with written form or visual media.

One such is the "clinamen", which means a slight swerve or deviation from an intended target. This can be applied in any medium and can produce surprising yet meaningful results.

A second pataphysical operation is the syzygy. This is a term borrowed from astronomy, which refers to an unexpected alignment of three astral bodies. Jarry calls a pun a "syzygy of words".

A third is the antinomy. This refers to the simultaneous existence of mutually exclusive opposites, a condition that cannot exist in physics, is abhorred by metaphysics, but positively embraced in pataphysics.

The final one is the anomaly, which will surely be familiar to everyone: the thing that does not fit.

By embedding these operations within the technology, we hope to release illogicality, serendipity, divergence, in short surprise, but a surprise that is not simply random or silly.

The technology presents a challenge, however, because it is expressly not engineered to behave in this way. Consider, for example, the semantic web. In order to reach ever more meaningful results, it must continuously disambiguate. Its precision requires a rich and sophisticated form of logic. Even fuzzy logics are bound by this condition, by focusing on an indeterminate middle condition that lies between two clearly defined poles.

### Syzygy Surfer



In 2010, Jim Hendler and I began work on the Syzygy Surfer, a project that is still ongoing. This is essentially a search engine which takes you not where you thought you wanted to go, but somewhere you never expected to go but are glad when you arrive there. In this research, we introduced the idea of patadata, which stands in the same relation to metadata as metadata stands to data. We hoped to harvest those human so-called failings identified by Cory Doctorow in his "metacrap"

thesis: lying, laziness, error, subjectivity, etc. We grafted this onto Push Singh and Marvin Minsky's concept of panalogy, which states that our understanding of any object or action cannot be easily explained in any single conceptualisation.

There are several published examples of the results of this work. Fania Raczinski's pataphysical search site deploys the syzygy surfer in various ways to deliver poetic, visual and multimedia results. My online opera *The Imaginary Voyage*, similarly uses the Syzygy Surfer, and I would like to play you two extremely brief excerpts now. You can view the whole thing at [www.theimaginaryvoyage.com](http://www.theimaginaryvoyage.com)

More recently I have been working with my colleague Hongji Yang to create a pataphysical programming language that we have named PRASCAL. The web applications of this are yet to be developed, so I will not say too much about it, but I would note that we introduced Uboolean logic, in which things may be true, false, or falsetrue. This differs from conventional many-valued logics in that it does not seek to identify an included middle term that is undecided, but rather allows the explosive collision of two opposing conditions.

Creativity lies somewhere in the area between tacit knowledge and procedural knowledge, in other words between those things we know but cannot say and those things we can say but cannot always understand. Creative play, that is often humorous, is one way of releasing that creativity. The sense of the discovery of the unexpected that characterised the early days of the web, that was so well summed up in Jean Armour Polly's term "surfing", with its sense of skills, thrills and dangers, needs to be retained or recreated. The web today has become so dominated by usefulness that the purposively useless is hard to find. Yet it is precisely that purposive uselessness that offers the best creative potential.