Nice (France), January 4th 2017

A few thoughts by the Cloem team in response to the article "PATENTS IN AN ERA OF INFINITE MONKEYS AND ARTIFICIAL INTELLIGENCE" published in the Stanford Technology Law Review, October 2015

About "brute force" creation. Cloem does not exclusively rely on brute force. Instead, we use the power of machines based on (a lot) of human input, along mathematics. Cloem thus combines very high volumes of texts with ever increasing linguistic and domain specific textual quality. The upstream model involves a significant capital and intellectual effort. The creation of variants is far from being easy, or direct, and in reality requires sophisticated skills and tools.

About retrieval. The article suggests that computational texts hardly can be retrieved. We assert that we create a fantastic number of textual variants, each one having a unique and permanent web address, and that all of these variants are searchable. We also provide samples of a series of variants, in a portable document format, providing an efficient "semantic pavement" of a well-delimited "space of ideas".

About the lack of context. The article may suggest that no specification is associated with cloem texts, i.e. that there are only "mere" claims. We underline that patent claims are – by design – supposed to be self-sufficient, i.e. they do not require the presence of a description. In addition, nothing prevents us to automate – at least partly – patent drafting, in particular the composition of claims along a description. We hope to demonstrate soon enough such developments. Advantageously, Cloem "linearizes" the specification with claims (i.e. by using words taken from within the specification and creating as many variants as needed), thereby improving searches in the corpus because distant words in a paragraph can become adjacent. With Cloem, a claim tree is formally solved, in that independent claims are rendered from the combination of an independent claim and its dependent claims. The reader does not have to perform the mental effort of recombination of the independent claim with its dependent claim since the machine has performed the combination, with concrete textual rendering. In this way, indexing is improved, too. Before Cloem, you had a set of claims and a reservoir of words (i.e. a description). Since Cloem, you have a much bigger set of variants of claims, incorporating the words used in the description.

About "enablement". A randomly chosen Cloem text can be less "enabled" than a randomly chosen sentence from the patent corpus, but even a wrong or absurd text can be useful, and in any case can serve as prior art. We observe an increasing part of textual variants that can be legally considered as enabled: human cognition coupled with linguistic and domain knowledge can repair apparent defects of a text, in addition to common general knowledge (variants at least constitute inventive step attacks). We also observe that the

“common general knowledge” concept is rather a “black hole”, in that it is largely subjective (evidence is rarely brought up, in a sufficient manner) and not convincingly addressed by patent attorneys and examiners. As the legal criterion of clarity, the common general knowledge shall become quantified. Cloem is striving to render this aspect as objective as possible (e.g. by injecting definitions in patent claims, or by digesting manuals and encyclopedias such as Wikipedia).

About “transposition”. About analogous prior art mentioned in the article, sketching the topic of silos of technical domains which justify current assessments of inventive step, we fully agree that this aspect is critical. We think the mash-up of patent classification that Cloem is proposing will lead to huge amounts of patentable inventions at the crossroads of disciplines.

About “obviousness”. We observe that texts obtained by linguistic “routine” manipulations can precisely define what is “obvious” or not. We can also argue that Cloem is fair for inventors, by “securing” an invention. By contrast, legal support criteria – for example according to Article 123 EPC – have become excessive and too often prove to be detrimental to first inventors.

About policy versus A.I. We consider that the advent of “Quants” in patents is largely unavoidable. Cloem invites and incites anyone to think as mathematicians rather than as lawyers (e.g. think of distributed ledgers, of distributions of content, etc.)

About the future. We think that this article is important and profound. Many directions would deserve further developments, for example machine translation or the role of distributed ledgers. In our view, current IP players are in the situation of banks before the advent of High Frequency Trading.