Chapter 24

Negative Exponent Fraction: A Strategy for a New Virtual Image into the Financial Sector

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ABSTRACT

The authors present the mathematic strategy of the negative potency in the constitution of the new symbolic and corporative image of online banking and financing institutions. The current work focuses on the digital static images and semiotics applied to the contents for the homepage of the banking, financing, and newspaper portals. Also presented are online examples of those institutions that increase the loss of reliability in real or virtual customers.

INTRODUCTION

As a rule, in the educational field of the subject of mathematics for the young teenagers, the operations of addition and second degree multiplications are easier than the divisions among fractional numbers, for instance. The last two decades of the 19th century, the multimedia systems off-line and on-line, have reduced considerably those problems in the classrooms or at least make more entertaining the mathematics since an early age. Some excellent multimedia systems off-line from the point of view of the design categories, such as: layout, content, structure, navigation, etc. are Peter and the numbers (Ubisoft, 1994) or Pingu and friends (BBC, 1997). Now the exponentiation is a mathematic operation between two terms called: base $a$ and exponent $n$. It is written $(a)^n$ and is usually read as “elevated to $n$”. An elevated number to a negative exponent, is equal to the inverse of the same expression but with a positive exponent, whose classical representation is which follows:

\[ a^{-n} = \frac{a^0}{a^n} = \frac{1}{a^n} \]

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Now starting from the last years of the first decade of the new millennium and down to our days, this has been the strategy followed by the financial institutions in the face of the global economic crisis in Southern Europe, for instance. The examples in the current work belong to banking/financial institutions whose headquarters and/or branches are in Catalonia and Lombardy. The use of the terms financial institution and banking institution are treated here as synonymous, although from a financial point of view they are different. The reason for this balance on the level of significance is due to the banking institutions being included in banking institutions, post service, etc. and it is they who offer their services to the customers. The problem is that many real customers do not understand these differences with the real world, and then they come across the differences in the computer context, for instance. This is due to the fact that they try to be a subset inside the corporative image of other institutions of greater prestige or trust. That is, they interact from a virtual and commercial image which has been generated along the centuries by real institutions (Post Service) but which currently are not related to the service of lending money to its small customers, for instance. Simultaneously, they constantly try to invert the levels of significance and the signification of the images, in the spiral of the infinite semiosis defined by Greimas using real symbols from daily life. That is, symbols of great popularity in the local, provincial, national or international community. Consequently we are in a phenomenon of homogenization of the real and virtual image with those financial institutions which act from the intersection of the following sets:

In Figure 1, it can be seen how there is implicit a first operation of negative potency of the recently created financial institutions, that is, when they are placed at the same level of those which have a long time record such as can be the Post Service.

Now, the transmission of knowledge is exclusively made through signs, especially linguistic. The acquisition of know-do takes place through the manipulation of signs. With the semiotics can be considered the breaking down of the contents (according to their nature: qualities, facts or concepts), their way of presentation (resorting more or less systematically and programmatically to iconic signs such as diagrams) or indicial (such as photographs), their way of control, etc. This is the reason why we resort to semiotics.

In view of the rhetoric question: “Is semiotics a science or a philosophy?” We regard as appropriate the answer given by Claude Marty and Robert Marty when they claim that by introducing a well-defined and clearly limited theoretical object we can talk if not of a science, at least of a

Figure 1. Public or private or mixed institutions aimed at the banking activities (banks and saving banks), public service institutions, (for instance, Post Service), financial institutions

![Diagram of Bank, Post Service, and Financial Institutions](image-url)