

How viXra.org can Enhance its Image

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Abstract

This paper will discuss a way that viXra might be enhanced by selecting out papers that show most interest to the reader community.

1 Introduction

I have uploaded seven papers¹ to the viXra repository, and have collected data on the downloads of those papers. This data, has interesting properties that I will discuss in section 2. In section 3. I will layout a path that I believe will enhance viXra, as well as the more outstanding papers in the repository. This can be done with minimal modification.

Before continuing I would like to include two quotes, first a quote from Richard Feynman's 1965 Nobel Lecture and second a quote from the viXra website.

Richard Feynman's 1965 Nobel Lecture

We have a habit in writing articles published in scientific journals to make the work as finished as possible, to cover all the tracks, to not worry about the blind alleys or to describe how you had the wrong idea first, and so on. So there isn't any place to publish, in a dignified manner, what you actually did in order to get to do the work, although, there has been in these days, some interest in this kind of thing. So, what I would like to tell you

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¹One of these papers was uploaded with the author name, R. T. Longo

about today are the sequence of events, really the sequence of ideas, which occurred, and by which I finally came out the other end with an unsolved problem for which I ultimately received a prize.

A quote from viXra website.

Even if many papers on viXra turn out to have little scientific value, at viXra we believe that everyone should be encouraged to think for themselves and be given the opportunity to learn by their mistakes. It is also the case that you can never predict what crazy idea may inspire someone else to think of something else of real value. ViXra is not "a way round peer - review" which is an important part of scientific evaluation. However, some scientists now agree that peer - review and publication should be formally separated. Traditional peer - review is often seen as flawed because of the role of publishing houses often motivated by business interests. Despite much discussion scientists and mathematicians have so far failed to implement a viable alternative to peer - review controlled by journals.

I believe viXra is that dignified place, to propose new and unfinished ideas, spoken of by Feynman.

2 Determining Interest in viXra Papers

The first paper I uploaded to viXra was titled "In Search of Reality (ISofR): viXra:1405.0244 on 2014-05-19. I was interested in determining if there was any interest in what I had to say. I was an industrial physicist, retired in 2002 after a successful 30 years with Hughes Aircraft which became Boeing after Howard Hughes died. After retirement I pursued my long held interest in General Relativity and Quantum Mechanics. I am not interested in finding a job or a new career. Not having an institution or university behind me, as well as I am interested in working at the fringes of the existing paradigm, scientific journals were not open to what I find interesting.

So after my first viXra paper I thought I could keep track of how many people were reading the paper, since viXra records the number of downloads from unique IP addresses. In time I began to notice some interesting patterns

in the download data, and this is what I will discuss next.

In Figure 1 the first 1100 days of ISofR shows an interesting curve. I found this curve followed a diffusion type behavior with a diffusion constant with units of $downloads^2/day$. This suggests the downloads were random, like a random walk. This indicates each download is independent of earlier downloads. The solution to the one dimensional diffusion equation is

$$\langle x^2 \rangle = 2Dt \tag{1}$$

where x^2 is the mean spacial dimension, in this case it represents the accumulated number of downloads up to time t , and D is the diffusion constant.

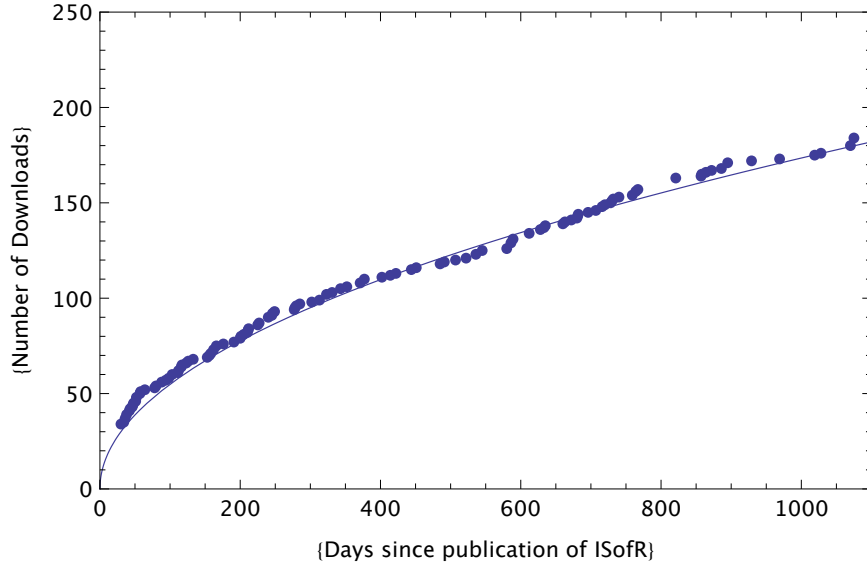


Figure 1: Tracking unique IP address downloads of ISofR. The solid curve is a fit to Equation 1.

Up to 1100 days after upload there appears to be no coordinated interest in the paper, i.e., people are not talking to each other about it. During this entire period I was working on another concept suggested by the first paper. I began to wonder if another paper would change the random behavior of the first. I put together two different papers, The Observer Effect (TOE): viXra:1609.0273 2016-09-18 and Pioneer Anomaly Re-visited(PA): viXra:1611.0399 2016-11-29 using TOE, to see if I could induce a change in the random nature of the first paper. I informed a previous colleague now at

JPL that they might be interested in these two papers, that communication was made on about day 900 of ISofR after both TOE and PA were uploaded. Figure 2 shows these two papers, with their start points and scale placed at the corresponding days on ISofR, when I uploaded them to viXra.

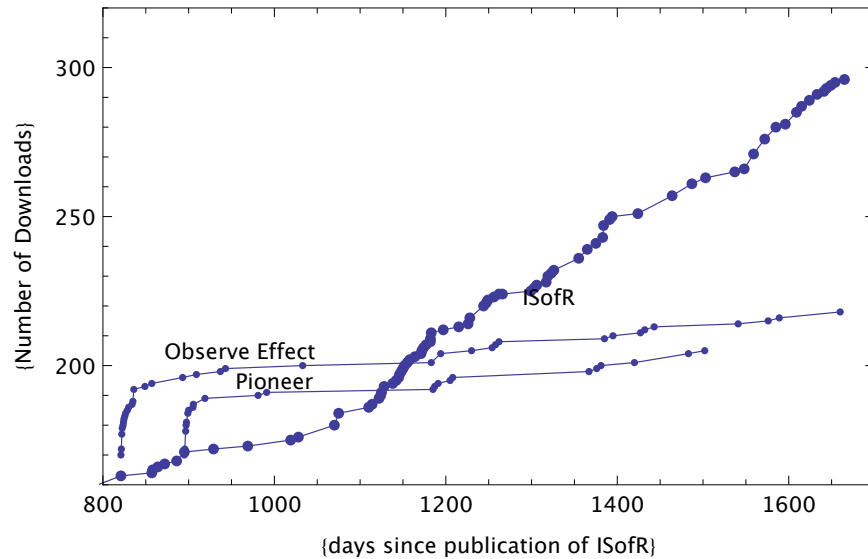


Figure 2: Impact of TOE and PA on ISofR

The first thing to notice with both TOE and PA is that the initial rise is quite sharp and then they saturates reasonably quickly. This can be interpreted as an initial conversation about the paper was with a limited group. Second, nothing seems to happen to the random nature of ISofR until 1100 days, about 200 days after their introduction, then the characteristic of ISofR changed. It no longer follows the same random diffusion behavior. This is shown more clearly in Figure 3, where the diffusion effect, Equation 1, is subtracted from the ISofR data.//

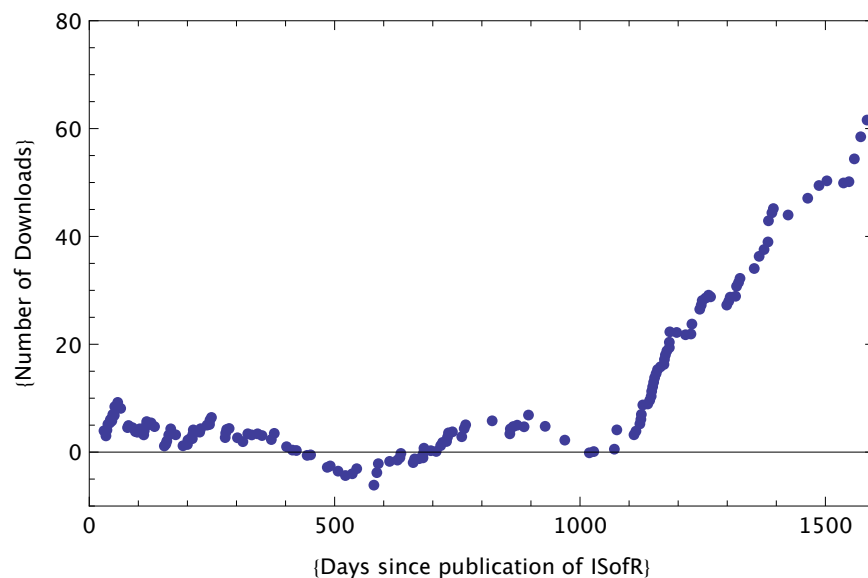


Figure 3: ISofR with the diffusion effect subtracted. The change in the download character is quiet sharp.

The change in character of the download curve is quite abrupt and has continued in an almost straight line for nearly two years. This does not suggest a random effect but suggests that people maybe talking about the paper. It is not clear that the two papers TOE and PA caused the change. Clearly it could have been a "critical mass" of the nearly two hundred downloads that starts a conversation. Either way this technique tells us something about the readers.

3 Can viXra be Enhanced by Applying this Technique

ViXra can easily make simple modifications to its data base of papers to produce this kind of analysis for all new papers, and perhaps for older papers if they have date versus download information. A simple program can check if the number of downloads has changed, if so it records the number of days since the paper was uploaded. By building a small file for each new paper the technique discussed above can be created. Periodically this data can be plotted, and perhaps shared with the authors.

Once the technique is implemented a program can be written to evaluate the papers by the criteria discussed above, as well as quantity of downloads. Those papers that meet some predetermined condition could be treated in a different way, perhaps binding them, every one or two years into a journal, maybe called "The Best of viXra" that can be sold to libraries and individuals. Or perhaps they could be moved to another repository site, maybe named viXra.pro.

By producing these internal statistics, it would be analogous to the Citations publication, and further it would in effect be like letting the entire scientific community peer-review viXra papers.