

# Live Open Science, a Good fit for LENR Research

#Ryan Hunt, Mathieu Valat, Bob Greenyer

Quantum Heat Community Interest Company (Number: 08261143), UK, ryan@quantumheat.org

## Abstract:

Inspired by the historical evolution of research in LENR, the Martin Fleischmann Memorial Project is inventing a new way to investigate the phenomenon, the so called “live Open Science” (LOS) approach. This paper presents the methodology and the tools that are necessary to harness the power of the crowd in the pursuit of science, filling the gap between labs and journals, and speeding up the experimental review and consequent iterative process. The implications of this “new way of doing science”, when done well, are enhanced credibility through rapid peer review, and rapid dissemination of new knowledge. The ability of the approach to identify problems and poor approaches early is highlighted.

LOS is the logical extension of public knowledge diffusion that was implemented by creative common licensing and the open source software revolution but applied to the oldest form of cartesian process. The paper describes the game changing nature of internet enabled distributed funding and research. Collaboration tools and methodologies are explored.

The power of data aggregation and live publishing to the web with real time graphing capability even on mobile platforms is discussed. The ability of the crowd to download, analyse and critique historical and live 24/7 raw data without a tendency to group think or goal seek, because of a lack of vested interest, is explored. The benefits and challenges of an open approach to experiment and protocol design are elaborated upon.

The ability of online project management and tracking, multi-way video calling, live open documents with many simultaneous authors, regular progress update blogging and video production to accelerate scientific exploration is discussed in depth.

The lack of funding that LENR research has traditionally suffered and the distributed nature of the researchers lends itself particularly well to the LOS approach.

The current basis for disruptive technology is exemplified by ARM Holdings CPU designs and Google Android OS. One is hardware the other software but in both cases the core technology is developed and, even if proprietary, is then made available for others to build their systems around, extending and amending as needed to fit a particular requirement. This distributed development process retains key stakeholder IP and is similar to the way our project is organised. Like the mobile industry, parallels are highlighted that indicate that LOS can promote the adoption, extension and application of LENR technology.