

47th IAA SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) –
The Next Steps (A4)
SETI 2: SETI and Society (2)

Author: Prof. John Elliott
Leeds Beckett University, United Kingdom, j.elliott@leedsbeckett.ac.uk

Prof. Kathryn Denning
York University, Canada, kdenning@yorku.ca

Dr. Denise Herzing
Wild Dolphin Project and Florida Atlantic University, United States, dlherzing@wilddolphinproject.org
Ms. Lori Walton
Canada, lwalton2040@gmail.com

A POST-DETECTION STRATEGY:
PROPOSING A NEW IMPETUS AND FRAMEWORK FOR SETI

Abstract

Historically, the search for intelligent life beyond Earth has focused on the science and protocols for the detection and announcement of a confirmed candidate signal, from an extraterrestrial civilisation. Recently, this has extended to a broader search for life through exoplanet detection. Of course, any confirmed extraterrestrial life will be of immense significance. Nevertheless, the existing SETI protocol (SETI, 1989; 2010) predominantly focuses on the search, detection, confirmation and the initial announcement: contributions centred on astrophysics. Post-detection protocols urgently need further development.

Initial steps have included the DISC Quotient (Elliott 2008; Elliott Baxter, 2012) which details a post detection plan for decipherment and dissemination, based on the science of signal decipherment and societal impact strategies. The Rio 2 scale (Forgan et al, 2018), recently updating the original Rio Scale (Almar Tarter, 2000), aims to qualify the credibility and consequences of a discovery, with a view to communicating the significance of a signal to the general public. Elliott and Forgan are looking at developing how Rio 2 can seamlessly 'hand-shake' with DISC, as we move to the first stages of post-detection analysis.

It is now necessary to develop both a policy and technological framework, which coherently and (as far as possible) comprehensively plans from the moment of a confirmed discovery, across the stages of post-detection analysis and dissemination, to a point where all information is gleaned, reported and actioned. The post-detection phase after a significant signal is discovered may be an extremely important, complex and demanding aspect of SETI's role – arguably, the sub-surface part of the discovery 'iceberg'.

To work on addressing these pressing issues, we propose to form a new Post-Detection team, predominantly comprising experts in applicable social sciences and technical fields, who will meet on a frequent and regular basis, via a secure online platform. This will then expedite recommendations for policies and an analytical framework, as we move to develop and implement associated tools and infrastructure: initial groundwork theory accessible via publications. This particular aspect will, of course, be greatly assisted by funding.

This paper outlines the nature of the post-detection problem and proposes short- and long- term recommendations for developing a robust and effective system. With agreed-upon strategies and appropriate capabilities, we will be more ready to responsibly navigate the sequelae to a detection.