

MAKING AVAILABLE SCIENTIFIC
INFORMATION IN THE THIRD MILLENNIUM:
PERSPECTIVES FOR THE
NEUROSCIENTIFIC COMMUNITY

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DOES IT REALLY RESULT IN EQUAL OPPORTUNITIES?

everyone can read OA papers, including scientists living in poor countries

but, will OA method create new discriminations on who can afford publishing on OA journals?

PUBLISHING NEGATIVE RESULTS IN SCIENTIFIC JOURNALS

The argument for greater dissemination of negative results is that people may be deterred from pursuing a line that people have already 'proven' to be unsuccessful

If a study found no link between two factors, should that necessarily prevent others from continuing to pursue the hypothesis? Possibly not. However, it will be substantially easier to make that decision with all the results from the field of research at scientists' fingertips

To prevent repetition of research, waste of resources and to encourage a wider understanding of scientific subjects, 'negative' journals may be just what is needed

For ethical reasons, to reduce the number of animal subjects
(3 Rs PRINCIPLE)



About *Journal of Negative Results in Biomedicine*

What is *Journal of Negative Results in Biomedicine*?

Journal of Negative Results in Biomedicine is an Open Access, peer-reviewed, online journal that promotes a discussion of unexpected, controversial, provocative and/or negative results in the context of current tenets.

Journal of Negative Results in Biomedicine aims to encourage scientists and physicians of all fields to publish results that challenge current models, tenets or dogmas. The journal invites scientists and physicians to submit work that illustrates how commonly used methods and techniques are unsuitable for studying a particular phenomenon. *Journal of Negative Results in Biomedicine* strongly promotes and invites the publication of clinical trials that fall short of demonstrating an improvement over current treatments. The aim of the journal is to provide scientists and physicians with responsible and balanced information in order to improve experimental designs and clinical decisions.

Articles published in traditional journals frequently provide insufficient evidence regarding negative data. They hardly allow a rigorous evaluation of the quality of these results. In addition, controversial results that refute a current model or simply negative results within a current dogma, frequently



Journal of Negative Results

Ecology & Evolutionary Biology

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open journal systems

The primary intention of Journal of Negative Results is to provide an online-medium for the publication of peer-reviewed, sound scientific work in ecology and evolutionary biology that may otherwise remain unknown. In recent years, the trend has been to publish only studies with 'significant' results and to ignore studies that seem uneventful. This may lead to a biased, perhaps untrue, representation of what exists in nature. By counter-balancing such selective reporting, JNR aims to expand the capacity for formulating generalizations. The work to be published in JNR will include studies that 1) test novel or established hypotheses/theories that yield negative or dissenting results, or 2) replicate work published previously (in either cognate or different systems). Short notes on studies in which the data are biologically interesting but lack statistical power are also welcome. JNR also intends to present the results of studies in a format suitable for formal meta-analysis. Research quality is of highest importance for JNR. Manuscripts will be assessed for publication on this basis - positive results or support for current scientific dogma are not essential.

'to do science is to search for repeated patterns' (MacArthur, 1972)

JINR is an electronic journal, with a printed version to be negotiated with a major publisher once we establish a steady presence. The journal will bring to the fore research in Natural Language Processing and Machine Learning that uncovers interesting *negative* results.

It is becoming more and more obvious that the research community in general, and those who work NLP and ML in particular, are biased towards publishing *successful* ideas and experiments. Insofar as both our research areas focus on theories "proven" via empirical methods, we are sure to encounter ideas that fail at the experimental stage for unexpected, and often interesting, reasons. Much can be learned by analysing why some ideas, while intuitive and plausible, do not work. The importance of *counter-examples* for disproving conjectures is already well known. Negative results may point to interesting and important open problems. Knowing directions that lead to dead-ends in research can help others avoid replicating paths that

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INSTITUTIONAL REPOSITORIES

- 1) Arrange peer reviewed papers in institutional repositories is a necessity
- 2) Access to IR should be regulated, e.g. banning or limiting profit organizations
- 3) Access to IR should exploit internet systems, professional organizations, scientific societies or network groups

INSTITUTIONAL REPOSITORIES

1) Arrange peer reviewed papers in institutional repositories is a necessity

Ethical filters

Faked or weak data

Database for minute data variability and factorial presentation

INSTITUTIONAL REPOSITORIES

2) Access to IR should be regulated, e.g. banning or limiting profit organizations

Paper journals

- multiple readership (social reading)
- alert system
- "shadow" subscription (pdf sharing)

To ban or not to ban?

- ISS (USA-NIH ?) policy
- gradual shift towards OA
- profit for the future (reduced, not abolished)

INSTITUTIONAL REPOSITORIES

3) Access to IR should exploit internet systems, professional organizations, scientific societies or network groups

Professional organizations:

- Accademia Nazionale dei Lincei
- Accademia dei XL
- Accademia Medica di Roma, etc

Network groups:

- Ethologists for the Ethical Treatment of Animals (EETA)
- Animal Forum
- EuroBirdNet (EBN)

Scientific societies:

- SfN (over 37500 members),
- FENS (over 15000)
- IBANGS (around 700)
- EBBS (around 600)
- SINS (around 600)
- UZI (around 700)
- SIE (around 150)
- etc



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What is HighWire Press?

A division of the Stanford University Libraries, HighWire Press hosts the largest repository of high impact, peer-reviewed content, with [999 journals](#) and 3,785,620 full text articles from over 130 scholarly publishers. HighWire-hosted publishers have collectively made [1,490,032 articles free](#). With our partner publishers we produce 71 of the 200 most-frequently-cited journals.

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Neuroscienze Comportamentali



Responsabile: Enrico Alleva

 Cerca

Chi siamo >>>

Il gruppo di ricerca in Neuroscienze comportamentali ha come principale oggetto di studio il cervello e il comportamento degli animali e dell'uomo

Etologia applicata >>>

L'etologia applicata riguarda l'utilizzo dei principi etologici alle varie forme di interazione tra l'uomo e gli animali al fine di migliorare tale relazione e con particolare riguardo a: animali di affezione (cani, gatti, tartarughe, ecc.); animali da reddito (suini, bovini, pollame, ecc.); animali nella sperimentazione (scimmie, ratti, topi transgenici); animali negli zoo.

Pet therapy >>>

Fin dall'antichità gli animali da compagnia hanno sempre rivestito un importante ruolo terapeutico, che recentemente ha sviluppato una metodologia appropriata ed impieghi terapeutici mirati a specifiche psicopatologie

Censimento iniziative di PET-THERAPY

PET THERAPY: l'utilizzo di animali a fini terapeutici

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Comportamenti umani >>>

La ricerca in Neuroscienze comportamentali non si occupa solo di animali ma anche dell'uomo

Comportamenti umani

Animali in laboratorio >>>

La rinnovata sensibilità e attenzione al trattamento degli animali inizia, da qualche decennio, a trovare udienza nell'ambito della ricerca scientifica e a influire sulle legislazioni nazionali e sovranazionali

Alternative alla sperimentazione animale

Link >>>

- Società Italiana di Etologia
- Agenzia Spaziale Italiana
- Association for the Study of Animal Behaviour
- Centro di Referenza Nazionale per il Benessere Animale
- EPA - America's Children and the Environment (ACE)
- European Behavioural Pharmacology Society
- European Brain and Behaviour Society