

RESEARCHGATE PROJECTS: UNREGULATED ACADEMIC SOCIAL MEDIA

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Abstract

ResearchGate (RG) is one of the most popular academic social media platforms currently available to scientists. Allowing scientists, researchers and academics (SRAs) to network through the creation of a free account. RG provides a virtually unlimited ability for SRAs to share research, contact each other through an integrated platform and share ideas. In recent times, projects have been increasing in scope and visibility, fortifying the RG network status. This paper examines some of the project-related features at RG and points out, within a wider examination of RG and other SRA-oriented academic social media platforms, the existing benefits and risks. The results of this work will allow SRAs to manage and invest their time in a better way.

Keywords: academic social network, accountability, citation fraud, hidden costs and conflicts of interest, retracted papers, transparency

ResearchGate: risks, positive and negative aspects

ResearchGate (RG)² is an academic social networking site (ASNS) that allows scientists, researchers and academics (SRAs) to build academic profiles freely, upload published papers and other data-sets, and network with other SRAs of similar academic backgrounds either to share or find new research ideas, or to expand their network. Wikipedia [2017] indicates that there are over 11 million users, although it is unclear if they are all SRAs. Despite these positive aspects, still a relatively conservative SRA base, that is not tech-savvy, is reticent about RG and the benefits it can bring. Some of the most concerning aspects of RG are: the creation of profiles using publicly available data without the knowledge or explicit permission of the person profiled [Wikipedia 2017], the existence of retracted literature in an unretracted state which makes it possible to promulgate such literature [Teixeira da Silva, Bornemann-Cimenti, 2017], and a whole host of factors that serve to diminish trust in this ASNS e.g. the inclusion of literature that is neither scholarly nor properly vetted, the inclusion of papers published in hijacked or “predatory” journals [Dadkhah et al. 2016], the promotion of such journals on RG and the use of suspect “quality” works, which gives them a false sense of academic validity [Memon 2016; Wikipedia 2017], the use of the RG Score to grant papers a false sense of quality mimicking the Clarivate Analytics (formerly Thomson Reuters) journal impact factor [Memon, 2017]. These cases indicate that there are still relatively weak moder-

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2 <https://www.researchgate.net/>

ation policies at RG that screen and monitor the content that is posted. Despite these documented flaws, RG appears to keep expanding. It has been recently learned that RG received a 52 million US\$ investment in November 2015. However, this was only announced publicly in February 2017³.

Projects at ResearchGate

1. "Forced" additions and the use of RG projects as free advertising

ResearchGate has seen an increase in the number of projects. To better understand RG projects and their functionality and flaws some real-case examples are used, with screenshots to offer a visual aid to those ideas and to discuss the benefits or possible flaws and risks.

The discussion begins by using the RG project of an established and reputable leading researcher in the field of plant cryopreservation, a field of interest and expertise of Dr. Barbara M. Reed. The top page of Dr. Reed's RG profile indicates that she has four projects (P): an ongoing project on the mineral nutrition of in vitro plants using computer modeling, in which Dr. Reed links to some of her published literature as a literature support of this topic (P1); an international project with Kazakhstan to cryopreserve Berberis germplasm and to record the progress achieved as the project evolves (P2); a call for papers on plant cryopreservation for a special issue to be published by SpringerNature's In Vitro Cellular and Developmental Biology – Plant (IVCDB-P) on behalf of the Society for In Vitro Biology (SIVB) (P3); a call to join The 3rd ISHS (International Society for Horticultural Science) International Symposium on Plant Cryopreservation (P4) (Fig. 1). Members of the public can freely view the project goals, project members and collaborators, participating institutions and project logs i.e. achieved goals if any.

Fig. 1A Screenshot of a Barbara M. Reed's (USDA) ResearchGate profile on 16.12.2016.

Source: https://www.researchgate.net/profile/Barbara_M_Reed

The screenshot displays the ResearchGate profile of Barbara M. Reed. At the top, there is a search bar and navigation links. The profile header includes her name, affiliation (United States Department of Agriculture), and a 'Connect' button. Below this, a section titled 'Barbara M. Reed has 4 projects' lists the following:

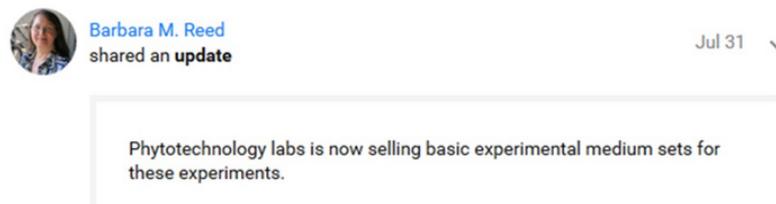
- Mineral nutrition of in vitro plants:** 4 updates, 5 collaborators, 154 total reads, 33 total followers.
- "Development of technology for cryogenic preservation of valuable types and forms of barberry germplasm" – a source of biologically active substances:** 2 updates, 3 collaborators, 33 total reads, 5 total followers.
- Plant Cryopreservation:** 1 update, 1 collaborator, 100 total reads, 21 total followers.
- III ISHS International Symposium on Plant Cryopreservation (CryoSymp2017):** 18 updates, 8 collaborators, 632 total reads, 40 total followers.

To the right of the projects, there is an 'About' section for the United States Department of Agriculture and a 'Skills and expertise' section listing various fields like Plant Tissue Culture, Plant Genetics, and Propagation. At the bottom right, a 'Top co-authors' section lists researchers like Sugee Wade and Esther Uchendu.

Careful scrutiny of P1's log indicates that Dr. Reed in fact made a sales pitch on July 31, 2016 for a commercial company based in the USA, Phytotechnology labs (more correctly, PhytoTechnology Laboratories®) (Fig. 1B), i.e. willingly or not Dr. Reed is using RG to promote commercial products which is free advertising. This then calls into question if there are any hidden commercial or other ties and interests between Dr. Reed and Phytotechnology Laboratories®, or if PhytoTechnology Laboratories® is even aware of the fact that Dr. Reed is using RG to freely promote this company and its products. Since no conflicts of interest (COIs) are explicitly indicated, one assumes, given the highly respectable status of this leading plant scientist in the peer community, that there are none. A 2015 paper by Dr. Reed, however, curiously published in IVCDB-P, for which she serves as an editor, lists PhytoTechnology Laboratories® products (see materials and methods in Poothong and Reed 2015). So, there is most definitely a strongly possible hidden commercial COI. Even so, when there are commercial interests in RG projects, even more so when products are being advertised in this manner, there should be a formal declaration of COIs – or the lack thereof – by the project leader, in this case Dr. Reed. Furthermore, RG needs to offer guidance and norms for projects, which currently do not exist.

Fig. 1B Screenshot of a Barbara M. Reed's (USDA) ResearchGate profile on 16.12.2016.

Source: https://www.researchgate.net/profile/Barbara_M_Reed



P3 presents a complex publishing ethics question, namely if a for-profit publisher like Springer Nature, which publishes IVCDB-P, should be allowed to make use of RG for advertising books freely or publishing projects that will ultimately be sold for profit, even if their objectives are academic (Fig. 1C).

P3, like other RG projects, has its own unique URL ⁴. The same financial concern involves P4 which was added by another of Dr. Reed's collaborators, Marcos Martinez-Montero from Cuba, on November 26, 2016. This project, which is in fact a call to attend an international symposium in Cuba, displays prices and fees for registrants and even contact details for the travel agency (Fig. 1D), serving as a direct free form of advertising at RG with unlimited access to potentially millions of "clients".

Careful scrutiny of P2 indicates that it was not her who added this project to RG, but in fact one of her project collaborators in Kazakhstan, Natalya Romadanova (Fig. 2A). SRAs can add other SRAs to their projects without even asking for their permission, which occurred to the researcher (Fig. 2B), who then contacted an individual by email and requested his removal from that project. However, even if the researcher wants to be removed from the project, RG does not offer this possibility, i.e. a project that includes an SRA acts somewhat "forcefully" and without an opt-out, "remove" or "cancel" choice. This case indicates that known or unknown SRAs can be knowingly or unknowingly drawn into networks via RG projects by known or unknown SRAs that have a profile at RG. An SRA at RG is given the opportunity to add projects to his/her profile if one chooses to do so (Fig. 2C).

⁴ <https://www.researchgate.net/project/Plant-Cryopreservation>

Fig. 1C Screenshot of a Barbara M. Reed's (USDA) ResearchGate profile on 16.12.2016.

Source: https://www.researchgate.net/profile/Barbara_M_Reed

 **Barbara M. Reed** added a **project goal** Oct 6 ▾

Dear Dr. Barbara M. Reed,
 As a member of the Society for In Vitro Biology (SIVB), we are reaching out to you to let you know that we are requesting submissions for a special issue in In Vitro Cellular and Developmental Biology – Plant (IVP).
 Call for papers!
 A special issue on In vitro cryopreservation.
 Editor: Barbara Reed
 Deadline: January, 2017
 This special issue will focus on the latest developments in plant cryopreservation and the increasing need for maintaining endangered, medicinal, and economically important germplasm; with special emphasis on demonstrated success with maintaining then regenerating the specific studied species. Research on the genetic stability of plants and the production of secondary compounds in vitro after cryopreservation will also be considered.
 Those wishing to have their papers considered for inclusion in this special issue should visit www.editorialmanager.com/ivpl/default.aspx for instructions for authors and submission details.
 We hope you give us the opportunity to share your work with the scientific world and submit your manuscript!
 Regards,
 David R. Duncan, Editor-in-Chief, In Vitro Cellular and Developmental Biology – Plant

Fig. 1D Screenshot of a Barbara M. Reed's (USDA) ResearchGate profile on 16.12.2016.

Source: https://www.researchgate.net/profile/Barbara_M_Reed

 **Marcos Martinez-Montero** shared an **update** Nov 28 ▾

Registration Fees

. ISHS members:

- payment before Feb 20, 2017: **330€**
- regular registration after Feb 20: **370€**
- **For student** payment before Feb 20, 2017: **230€**
- regular after Feb 20: **270€**
 - copy of student card required

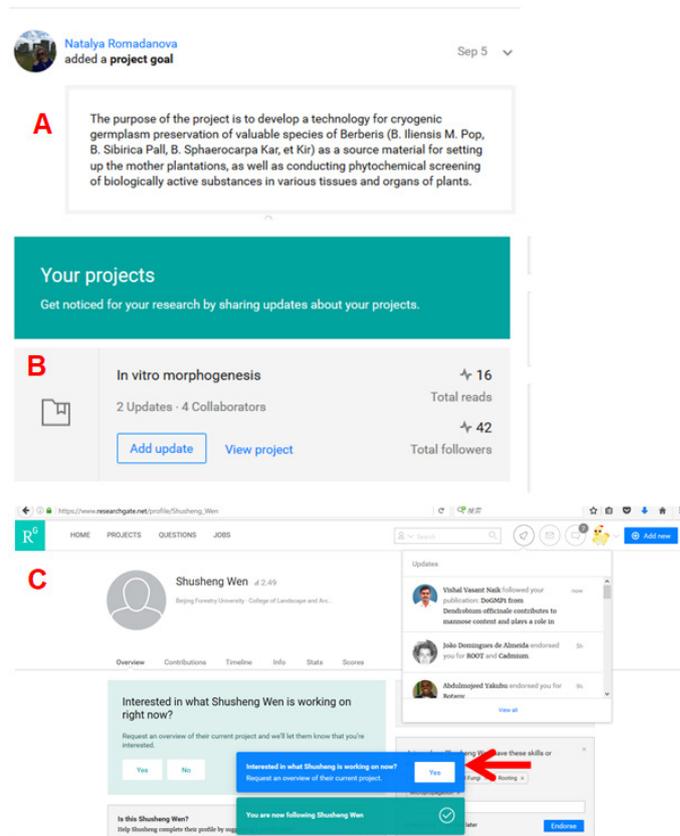
. Non ISHS members:

- payment before Feb 20, 2017: **410€**
- regular registration after Feb 20: **450€**
- **For student** payment before Feb 20, 2017: **310€**
- regular after Feb 20: **350€**
 - copy of student card required
- One-day registration: **250€**

Travelling Agency **Gaviota Tours S.A.**
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Lic. LIUVER RAMIREZ / Commercial Specialist for meeting:
comercial8.ventas@gaviotatours.cu

Fig. 2 Screenshot of Barbara M. Reed's (USDA) second ResearchGate project on 16.12.2016 (A) and 30.9.2016 (B).

Sources: https://www.researchgate.net/profile/Barbara_M_Reed (A); https://www.researchgate.net/profile/Jaime_Teixeira_Da_Silva (B, C).



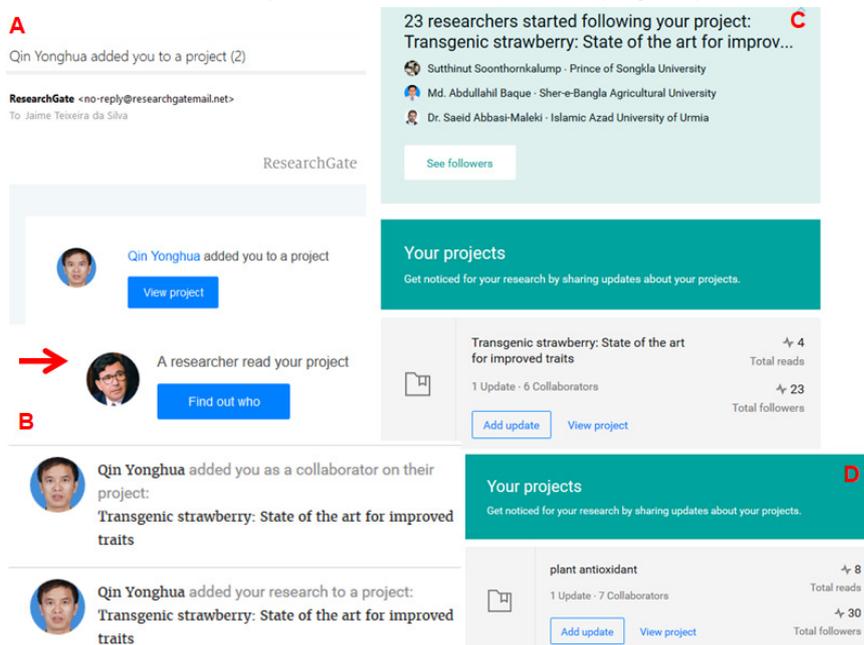
2. Addition to RG projects without an invitation or explicit permission

This section highlights two cases in which the author of this article (who will be referred by personal pronoun I in the following text) was added to RG projects without ever having been invited and without the project leaders ever having informed me of their intention by email (that they wanted to add me to their projects), or that they in fact had already added me to their projects. As a disclaimer, the first project leader had been involved with me several years back in a research project on strawberry and citrus crops.

As can be seen in Fig. 3A, I learned that I had been included on a RG project by email (an RG email alert). At about the same time, I received a separate email from RG indicating that a “mysterious” individual had read my project, but to “find out who” I had to log in, forcing traffic to the RG site. Not only was I added as a collaborator, but our research was then linked into the project (Fig. 3B). Within the same day (February 7, 2017) the project had already accumulated 23 project followers and 6 collaborators (Fig. 3C). On my own RG account there is no option allowing RG project collaborators, who have been “forcefully” added by other researchers, to remove themselves from projects. The only way to be removed from an RG project as a collaborator is to send a message to the project leader and/or members using the RG messaging system, or by contacting them by email. Fortunately, after contacting the project leader and some collaborators by email and through RG, I was removed from the project. Ten days later (February 17, 2017) the same problem repeated itself with another project having been added to my RG account without my permission (Fig. 3D). The process to get removed from an RG project for which we never asked to be included is laborious, time-consuming and stressful.

Fig. 3 Screenshots of emails and own ResearchGate account showing forced inclusion into a RG project on 7.2.2017 (A) and 17.2.2017 (B).

Sources: <https://www.researchgate.net/project/Transgenic-strawberry-State-of-the-art-for-improved-traits> (A, B, C); <https://www.researchgate.net/project/plant-antioxidant> (D).



Conclusions

RG serves as a useful platform for SRAs to increase their academic visibility and showcase their published work. It also allows them to fortify or expand their networks, seeking new partners, ideas or inclusions into new projects. SRAs need to be aware of the risks and pitfalls of ASNSs like RG so that they can make smart academic decisions that will fortify their careers and maximize the productivity of their invested time in academics. When establishing or joining projects at RG, SRAs should carefully examine the background information, objectives, project leader and desired outcome to avoid entering into an unscholarly – or worse, potentially fraudulent scheme that is set-up simply to catch unsuspecting victims (as in the case of hijacked journals). The use of RG projects as free advertising of commercial products – as has been done by Dr. Reed of the USDA – needs to be moderated and adjudicated. RG needs to set up strict rules, norms and guidelines for what should or cannot be included in projects to avoid platform abuse and the use of this ASNS to hide COIs, commercial purposes, etc. The case highlighted here indicates that RG is still highly unregulated, that researchers are dealing with issues that even highly reputable SRAs like Dr. Reed appear to have not yet considered. Wider discussion is required to fortify the applicability of RG projects and to limit their risks. If RG projects are not strictly regulated by RG and remain only purely self-regulated by users of this ASNS, RG risks quickly becoming overrun with non-academic ventures aimed at predatory economic exploitation but the same time veiling as academic projects with academic objectives.

Regulation and greater scrutiny are required since the top page of any RG account holder shows the current project status and attempts to entice the account holder to add projects by indicating the number of individuals within a network that are currently using such projects (Fig. 4A). The ability to include a person into a project, without their knowledge or without their implicit permission and without the ability of the person added to challenge that inclusion or remove themselves from a project voluntarily is one of the greatest abuses of the RG project platform (Fig. 4B). The latest irritant RG projects are almost idiotic questions asking if two published papers are linked to the same RG project. In my case, in particular, the question is ridiculous for two reasons (Fig. 5): not only I do

not have any RG projects, but also the papers are clearly not linked, suggesting that all of these processes are robotized, just wasting researchers' valuable time and patience.

Fig. 4 Screenshots of own ResearchGate account showing luring marketing and forced inclusion into a RG project on 31.12.2016 (A) and 12.1.2017 (B, top) and 13.1.2017 (B, bottom).

Source: <https://www.researchgate.net/project/In-vitro-clonal-propagation-of-citrus-plants>

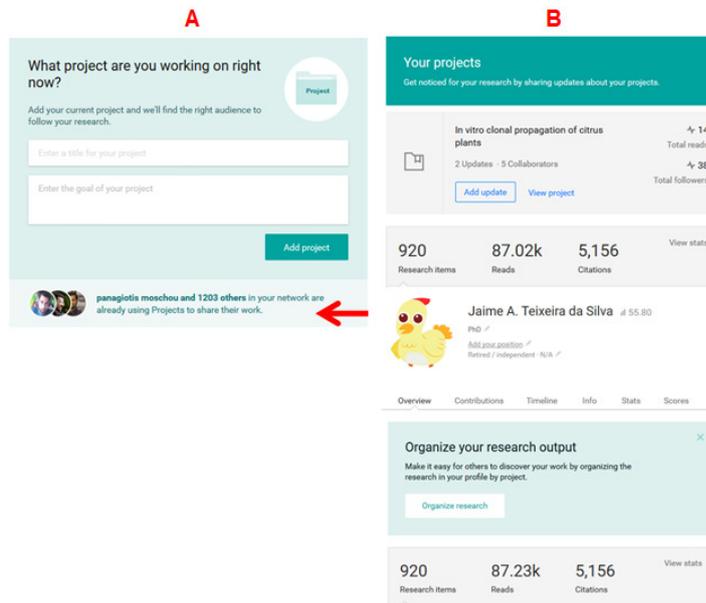
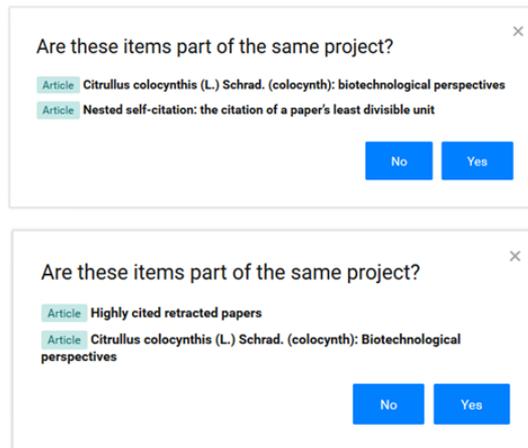


Fig. 5 Screenshots of own ResearchGate account showing silly questions on 2.2.2017 (top) and 24.2.2017 (bottom).

Source: https://www.researchgate.net/profile/Jaime_Teixeira_Da_Silva



Disclaimer and conflicts of interest

The author has an RG account. The author declares no conflicts of interest.

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