Digital Presence of Academic Scholars: A Case of Universiti Teknologi MARA, Perlis Branch, Malaysia

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As the function of internet has created various terrain for academia to plays important role in scholarly publishing, the use of academic profiling sites is seen becoming more important aspect for researchers’  to exchange and share their research ideas. However, many of them ignore the power of this regime and fully utilise its real potential, especially in Malaysia. Since there are little-written papers about profiling services in Malaysia academic context, the purpose of this study is tries to highlight the extent of online visibility among academic researchers in Universiti Teknologi MARA(UiTM), Perlis Branch. By examining five common basic online profiling  sites (i.e. ResearchGate, Academia, Google Scholar Citations, ResearcherID and ORCID), we found that approximately only 37% of researchers at UiTM Perlis have at least one profile, the prevalence being highest (> 40%) for members at the Faculty of \_\_\_\_\_ and the Faculty of\_\_\_\_\_\_\_\_. Across all disciplines, ResearchGate is the most widely used platform. However, within Faculty of \_\_\_\_\_\_\_,  Academia is the preferred one. We also observed that many researchers are reluctant to maintain their different sites profiles, and there is overlap between different profiling services. Age turns out to be a poor indicator for presence in the investigated profiling sites, women are underrepresented and professors together with PhD students are the most likely profile holders.

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# Introduction

In today digital technology environment, the function of internet have created various terrain for academic scholar to plays important role in outreach their research activity. This means that, with the rapid evolution of digital and networking technologies nowadays they can simply communicate and dissemination all the new and old knowledge they have to be available to larger audience. Many studies (Ortega 2015; Ortega 2015)have showed that internet could broader publishing opportunity where it can increase academic visibility and impact to academic scholar, however many of them ignore the power of this regime and utilise it real potential, especially in Malaysia. Statistic shows that many Malaysian scholars still left behind and still struggled in bringing their researches to impact, especially  on increasing the number of citations, h-index and other performance indicator for(see ). Looking into this facts, we inspired to examine the appearance of UiTM perlis researchers on online academic platforms by examining the discoverability of their scholarly profile based on five common profiling sites (i.e., ResearchGate, Academia, Google Scholar Citations, ResearcherID and ORCID)

# Online profile platforms and its impact

With the existence of the World Wide Web in today life, the scholarly publication landscape has dramatically changed the way of scholars disseminate their research works and activity. Several recent survey has shown that many academic scholars started to present themselves and their works through several online social platforms including by having their own personal homepages. They perceived that the level of discoverability of their scholarly works can be easily communicate and discoverable beyond the traditional searching and provide the new arena for communication within a defined scholarly community and beyond. Moreover, these online networks platform also able to provide researchers the possibility to control and shape their online presence because they are easy to be handled and have many embedded features that can be adapted for academic to outreach their scholarly works. Basically, what they need to do is to make their profile active and to confirm the dormant information by adding personal details, editing and uploading the list of publications. Although there are a lot of social network sites that have become prominent for scholars to be used and have developed enhanced features for connecting users and viewing various activities, there are still lack of interface harmonisation and confusing for smooth data exchanging between different online platforms .

 A recent study by Ortega [[7](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref007)] examined the growth of Google Scholar Citations profiles in the course of one year. The number of unique profiles was six folded during that time, from about 27,000 profiles in December 2011 to about 190,000 in December 2012. Mathematical and natural sciences (including engineering) were highest represented (about 50%), and Medicine and Social Sciences had a share of 6% and 5% respectively.

About half of the profile holders also added their position. The category Professor was the most often used (38%), by comparison doctoral students comprised 16%—but observed the largest growth.

Haustein, Peters [[8](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref008)] surveyed the presence of 57 bibliometricians, finding that by 2013, 23% had a profile on Google Scholar Citations, 58% on ResearchGate, 30% on [Academia.edu](http://academia.edu/) and 35% on ORCID. Also the number of profiles listed at the Web page of the University of Utrecht Library indicates a growing popularity of scholarly profiling. sites. Within one year (2013 to 2014) the number of profiles increased by 43% on Google Scholar Citations and 27% on ResearcherID [[1](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref001)].

The success of academic network sites is dependent on their simplicity and their adaptivity to the researchers’ need. Mas-Bleda, Thelwall [[9](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref009)] assessed the extent to which highly cited European scientists had a social Web presence and found that they were rarely attendant. Google Scholar Citations attendance was found to be 15%, while it was 4% at [Academia.edu](http://academia.edu/). LinkedIn, the only non-academic platform investigated, was the most popular service (27%). The authors report further that scientists having one type of Web presence were more likely to have another. There seems to be a reluctance to engage in wider debates behind established networks and outside own communities [[10](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref010)]. Based on an e-mail survey disseminated by the journal Nature, Van Noorden [[11](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref011)] reports that ResearchGate (48%) was the most used profiling service compared to ResearcherID (12%) and [Academia.edu](http://academia.edu/) (5%). Despite the potential for communicating across established borders and being a democratic arena, social network sites still reflect the same hierarchical structures, imposed by position and seniority, as in real-life [[7](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref007), [12](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref012), [13](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref013)]. On [Academia.edu](http://academia.edu/) faculty members contribute significantly more than post-docs, who again contribute more than graduate students [[12](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref012)].

# Methodology

A list of researchers at the UiTM Perlis was retrieved from the UiTM database called PRISMA. PRISMA stands for Publication Repository Information System Management which covers all the bibliographical data of scholarly publications including articles, books, edited book chapters and conference proceedings related to UiTM Perlis. Based on this data set, we scrutinise all the existing UiTM perlis scholars and examine their registered online profiling sites (i.e. ResearchGate, Academia, Google Scholar Citations, ResearcherID and ORCID). The Data included about researchers affiliated to the UiTM, Perlis Branch who have at least one publication during 2011–2014 and Author attributes (i.e. Number of publications, Faculty, Position, Age, Gender) Between 2011 and 2014 are selected. We assume that this dataset as unique source and universal to serve the pupose of  this study. Based on preliminary observation, we found scholars at UiTM Perlis have authored a total of \_ publications. By using this number of publication, we started to match names with names in the investigated profiling services.

This study applies a method for collecting data different from several previous studies (Ortega 2015; Mas-Bleda et al. 2014). In this study, we collect the data by analysing the existence profiling sites of every selected academic scholars at UiTM Perlis and then we stored these data to spreadsheets for further analysis.  Since the study is limited to the UiTM Perlis, the affiliation is used for selecting potential matches. The existing profiling sites were being searched by using several approaches including selecting parts of the page, filling out search forms, clicking buttons and following any links. Besides, we also using a set of selectors and expressions to navigate the page and extract the potential indicators that we were interested in. In respect to  ResearchGate and Academia profiling sites,  we started searching based on the  organisational starting page, and then select  and search affiliation. Additionally, for ResearcherId and ORCID we searched the affiliation by using both “Universiti Teknologi MARA, Perlis” and “UiTM Perlis” as both language forms are in use. For Google Scholar Citations we combined the search with email domains suffixes containing “uitm Perlis”. We experienced some issues during this period of this study which made the data extraction process slower. For one of the indicators, “publication count”, Google Scholar Citations counted duplicates and author variations names which caused the number of publications to fluctuate between each attempt. This problem was solved by manually counting the unique outgoing links for publications listed on the profile page. In addition, Academia webpage changed its structure after we had completed the data extraction.

# Results and discussion

## Online Profiling  sites Among UiTM Perlis Academic Scholar

Table 1 (panel A) shows online profiling that are most popular among researchers at the Universiti Teknologi MARA, Perlis Branch. Based on 5 common profiling sites  (i.e.  ORCID, ResearcherID, Google Scholar Citations, [Academia](http://academia.edu/) and ResearchGate),  the most popular profiling sites among researchers affiliated with the is Google Scholar. Only 28% (119 out 419) of the researchers at UiTM Perlis have a profile at this service (Table 1, last row). We find the second largest amount of profiles on Researchgate(17%), and only 2–7% of  the researchers hold a profile on the other services. of the investigated academic network sites, ResearchGate is the largest with 1307 members followed by Google Scholar Citations (333), [Academia.edu](http://academia.edu/) (169), ResearcherID (130) and ORCID (108). These findings correspond to earlier findings showing a similar popularity of the three first mentioned (Mikki et al. 2015)

Table 1

Furthermore , it also can be observed in table 1 (panel B) that out of the \_\_\_researchers identified in PRISMA (37%) have at least one profile at one of the analyzed network sites. Out of these 1593 researchers, 1233 (77%) have only one profile, 276 (17%) two profiles, 75 (5%) three profiles, 8 (0.5%) four profiles and only one person has a profile in each of the five services. The reluctance to maintain multiple profiles has also been found by Ortega [[2](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref002)]. However, Mas-Bleda, Thelwall [[9](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref009)] report that highly cited scientists having one type of web presence are likely to have another. The overlap between profiles that researchers have in the five different services is shown in [Table](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone-0142709-t003)1 and [Fig 1](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone-0142709-g001). The largest number (absolute and relative) of unique profiles is found in ResearchGate, 76% of researchers have only a profile in ResearchGate. Almost half of the researchers that have a profile in [Academia.edu](http://academia.edu/) also had a profile in ResearchGate, while this overlap accounts for only 6% of the identified ResearchGate profiles.None of the researchers have only a profile in ORCID. This might be because the service enables exchange of data between other services, and profiles might be created based on these. Additionally, ORCID still is a young service (founded in 2012) and not as established as the others. However, it has a great potential as an umbrella platform, linking different author identifiers and providing easy data exchange via APIs [[4](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref004), [36](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref036)]. The largest overlap is found between ResearchGate and Google Scholar Citations, which also are the services with the largest number of profiles from researchers affiliated with the University of Bergen. For these two services researchers seem more likely to maintain multiple profiles. Least overlap is observed between [Academia.edu](http://academia.edu/) and ORCID (5) and ResearcherID (8). The two last mentioned offer primarily a digital identifier. It seems that as long as minimal effort is needed to create a profile, scholars are more likely willing to maintain several services. In this regard, ResearchGate and Google Scholar Citations seem to meet most effectively the researchers’ need by automatically fabricating profiles. In addition, the offensive and smart marketing strategy of ResearchGate is identified as one of the reasons why people sign up [[11](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref011)]. Critical mass is another aspect of success. Since ResearchGate and Google Scholar Citations are already large, they grow more rapidly, and scholars are more likely to find peers, get connected and shape their online community [[6](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142709#pone.0142709.ref006)].

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# Author Contributions

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