# paperTool

March 28, 2020

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## 1 Option A: scholarly 0.2.5

### 1.0.1 https://pypi.org/project/scholarly/

[27]:
```
import scholarly
```

### 1.1 Retrieve the author's data, fill-in, and print

[28]:
```
search_query = scholarly.search_author('Alan Aguirre-Soto')
author = next(search_query).fill()
print(author)
```

```
{'_filled': True,
 'affiliation': 'Tecnologico de Monterrey',
 'citedby': 402,
 'citedby5y': 318,
 'cites_per_year': {2009: 4,
                    2010: 9,
                    2011: 18,
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                    2013: 20,
                    2014: 16,
                    2015: 36,
                    2016: 55,
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                    2018: 69,
                    2019: 62,
                    2020: 26},
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```

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               <scholarly.scholarly.Author object at 0x0000024C545DB588>],
 'email': '@tec.mx',
 'hindex': 8,
 'hindex5y': 8,
 'i10index': 8,
 'i10index5y': 8,
 'id': 'wcx7qdYAAAAJ',
 'interests': ['Photochemistry',
               'Photophysics',
               'Photocatalysis',
               'and Polymer Chemistry',
               'Science and Engineering'],
 'name': 'Alan Aguirre-Soto',
 'publications': [<scholarly.scholarly.Publication object at
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 'url_picture':
'https://scholar.google.com/citations?view_op=medium_photo&user=wcx7qdYAAAAJ'}
```

### 1.2 Print the titles of the author's publications

[29]:
```
print([pub.bib['title'] for pub in author.publications])
```

```
['Rheological and chemical analysis of reverse gelation in a covalently cross-
linked Diels Alder polymer network', 'Spatial and temporal control of thiol-
Michael addition via photocaged superbase in photopatterning and two-stage
polymer networks formation', 'Visible-Light Organic Photocatalysis for Latent
Radical-Initiated Polymerization via 2e/1H+ Transfers: Initiation with
Parallels to Photosynthesis', 'Uv-vis/ft-nir in situ monitoring of visible-light
induced polymerization of pegda hydrogels initiated by eosin/triethanolamine/O
2', 'Coupled UVVis/FTNIR spectroscopy for kinetic analysis of multiple
reaction steps in polymerizations', 'Excitation of Metastable Intermediates in
Organic Photoredox Catalysis: Z-Scheme Approach Decreases Catalyst
Inactivation', 'A quantitative analysis of peroxy-mediated cyclic regeneration
of eosin under oxygen-rich photopolymerization conditions', 'Photoinduced
diffusion through polymer networks', 'On the role of N-vinylpyrrolidone in the
aqueous radical-initiated copolymerization with PEGDA mediated by eosin Y in the
presence of O 2', 'Simultaneous measurement of fluorescence, conversion and
physical/mechanical properties for monitoring bulk and localized
photopolymerization reactions in heterogeneous systems', 'Shining light on the
coiled-flow inverterContinuous-flow photochemistry in a static mixer', 'Thermo-
Reversibility and Crack-Healing of A Cross-Linked Maleimide/furan Polymer',
'Latent free radical polymerization of bulk methacrylates: Organic visible-light
photocatalysis and supramolecular effects', 'Comprehensive high-throughout
analysis of polymer formation and final properties: Towards refined
understanding of structure-kinetics-properties relationships', 'Organic visible-
light photoredox catalysis for polymer synthesis: Advantages in polymerization
efficiency and materials design', 'Supramolecular hydrogen bonding in monovinyl
hydroxylated methacrylates leading to long-lived propagating radicals',
'Visible-light photoredox catalysis for novel photo-mediated polymer syntheses',
'Spatial and Temporal Control of Thiol-Michael Addition via Photo-caged Amine in
Photopatterning and Two-stage Polymer Networks Formation', 'PMSE Alshakim
```

```
Nelson, Matthew Becker, Christopher Stafford, Qinghuang Lin Wednesday, August
13, 2014']
```

### 1.3 Take a closer look at the 29th publication

[30]:
```
pub = author.publications[0].fill()
print(pub)
```

```
{'_filled': True,
 'bib': {'eprint': 'https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2921220/',
         'title': 'Rheological and chemical analysis of reverse gelation in a '
                  'covalently cross-linked Diels Alder polymer network',
         'url': 'https://pubs.acs.org/doi/abs/10.1021/ma801863d',
         'year': 2008},
 'citedby': 206,
 'id_citations': 'wcx7qdYAAAAJ:u5HHmVD_uO8C',
 'source': 'citations'}
```

### 1.4 Which papers cited that publication?

#### 1.4.1 [TODO: fix get_citedby(), as it almost every time returns an empty array]

[31]:
```
print([citation.bib['title'] for citation in pub.get_citedby()])
```

```
[]
```

### 1.5 Can also retrieve an author's data from a related keyword

[32]:
```
search_query = scholarly.search_keyword('Electrospinning')
query = next(search_query).fill()
print(query)
```

```
{'_filled': True,
 'affiliation': 'Technical University of Liberec',
 'citedby': 27590,
 'citedby5y': 27540,
 'cites_per_year': {2016: 27209, 2017: 48, 2018: 64, 2019: 155, 2020: 39},
 'coauthors': [],
 'email': '@tul.cz',
 'hindex': 13,
 'hindex5y': 13,
 'i10index': 20,
 'i10index5y': 19,
 'id': 'Zlb7K5gAAAAJ',
 'interests': ['Nanotechnology',
               'electrospinning',
               'filter',
```

```
              'water treatment',
              'membranes'],
 'name': 'Assistant Prof. Fatma Yalcinkaya',
 'publications': [<scholarly.scholarly.Publication object at
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                  <scholarly.scholarly.Publication object at
0x0000024C540C7EF0>,
                  <scholarly.scholarly.Publication object at
0x0000024C540C7F28>],
 'url_picture':
'https://scholar.google.com/citations?view_op=medium_photo&user=Zlb7K5gAAAAJ'}
```

### 1.6 scholarly also implements other ways to fetch data

```
def search_pubs_query(query):
    """Search by scholar query and return a generator of Publication objects"""
    url = _PUBSEARCH.format(requests.utils.quote(query))
    soup = _get_soup(_HOST+url)
    return _search_scholar_soup(soup)


def search_author(name):
    """Search by author name and return a generator of Author objects"""
    url = _AUTHSEARCH.format(requests.utils.quote(name))
    soup = _get_soup(_HOST+url)
    return _search_citation_soup(soup)


def search_keyword(keyword):
    """Search by keyword and return a generator of Author objects"""
    url = _KEYWORDSEARCH.format(requests.utils.quote(keyword))
    soup = _get_soup(_HOST+url)
    return _search_citation_soup(soup)


def search_pubs_custom_url(url):
    """Search by custom URL and return a generator of Publication objects
    URL should be of the form '/scholar?q=...'"""
    soup = _get_soup(_HOST+url)
    return _search_scholar_soup(soup)


def search_author_custom_url(url):
    """Search by custom URL and return a generator of Publication objects
    URL should be of the form '/citation?q=...'"""
    soup = _get_soup(_HOST+url)
    return _search_citation_soup(soup)
```

### 1.7 scholarly seems to be the easiest way to move forward, but we would need to fix the get_citedby() function ...

---

## 2 Option B: SerpApi's Scholar API

#### 2.0.1 https://serpapi.com/google-scholar-api, https://pypi.org/project/google-search-results/

[33]:
```
from serpapi.google_search_results import GoogleSearchResults

params = {
    "engine": "google_scholar",
    "q": "electrospinning",
    "hl": "en",
    "api_key": "secret_api_key"
}

client = GoogleSearchResults(params)
results = client.get_dict()
```

[34]:
```
print(results)
```

```
{'error': "We couldn't find your API key."}
```

### 2.1 SerpApi seems to have more functionality, but requires an API key (and may require a subscription $)

[ ]:
```

```