

# Scholars and Literati at the University of Göttingen (1734–1800)

David de la Croix                      Robert Stelter  
IRES/LIDAM, UCLouvain              University of Basel

This note is a summary description of the set of scholars and literati who taught at the University of Göttingen from its inception in 1734 to the eve of the Industrial Revolution (1800).

## 1 THE UNIVERSITY

George II Augustus, Elector of Hanover and King of Great Britain, founded the university in Göttingen in 1734. The process of establishing the university was headed by his minister Gerlach Adolph von Münchhausen. The objective was to supplement the old style University of Helmstedt by an institution that would be able to compete with the new University of Halle in nearby Prussia. The *Georgia Augusta* or *Georg August* University opened in 1737 and was the first German university with equal status for all faculties. The prominent position of the theology faculty was abandoned, as theologians often blocked the way to important new knowledge through bigoted censorship (Hermans and Nelissen 2005). Göttingen University also emphasized the principle of academic freedom in both research and teaching. Strong support for the natural sciences eventuated in the establishment of the first distinct faculty of mathematics and natural sciences in Germany. The university flourished quickly and already had a first period of prosperity in the eighteenth century (Meinhardt 1977).

## 2 SOURCES

Ebel's (1962) *Catalogus professorum Gottingensium: 1734–1962* provides a comprehensive overview of the scholars and literati active at the Georg August University. In addition to ordinaries, it includes scholars at the different stages of their career as well as guests. In our observation window 1734–1800, Ebel (1962) documents 335 scholars. We were only able to add a handful of names, mainly weakly linked to the University of Göttingen.

## 3 SOME STATISTICS

Table 1 displays some descriptive statistics. There are 340 scholars and literati. The year of birth is known, sometimes approximately, for 92.6% of them. The mean age at appointment is young, 29.9 years. Longevity is low compared to other European universities but similar to other German-speaking universities. A mean age at death of 62.3 years and an expected age at death conditional on surviving to age 30 of 63 years coincides with the average values in central Europe (Stelter, De la Croix, and Myrskylä 2021). The birth place is known for 70.3% of the individuals. For them, the median distance between place of birth and Göttingen is 193 km. Finally, 54.7% of the scholars have a Wikipedia page (in some language), and 89.1% of them have left a footprint in the catalogues of the libraries of the world, Worldcat, either by having published some work, or by having been the subject of published books and articles. These two numbers are very high, a reflection of the fact that Göttingen would quickly reach the first league of universities.

Period		nb. obs	% birth year known	mean age at appoint.	mean age at death	exp. age at death
Start	End					
1734	1800	340	92.6	29.9	62.3	63.0
			% birth place known	median distance birth-institution	% with Wikipedia	% with Worldcat
1734	1800		70.3	193	54.7	89.1

Table 1: Summary statistics by period

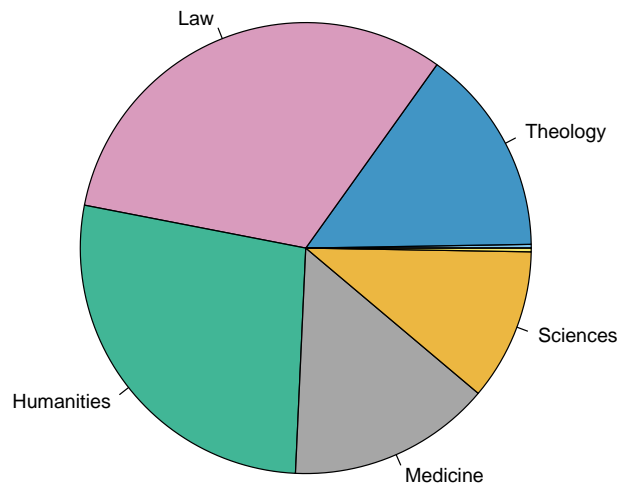


Figure 1: Broad fields at the University of Göttingen

## 4 FIELDS

Figure 1 shows the relative importance of fields, broadly defined. It comes as no surprise that beside the four traditional faculties (medicine, law, humanities, and theology), a significant share of scholars is linked to sciences.

## 5 PLACE OF BIRTH

Figure 2 is a plot of the places of birth of all the scholars active at the University of Göttingen. It documents the Germanic character of this university. Moreover, most of the scholars came from the central and eastern parts of Germany.

## 6 HUMAN CAPITAL OF SCHOLARS AND LITERATI

For each person in the database, we compute a heuristic human capital index, identified by combining information from Worldcat and Wikipedia using principal component analysis. We also compute the notability of the university at each date by averaging the human capital of the scholars active in Göttingen 25 years before that date. Details are given in the Appendix. Figure 3 shows the names of all the scholars with a positive human capital index. The university was started by hiring a series of scholars who were already active for some time. The orange line plots the notability of the university. It displays a quick rise to an outstanding level. The vertical green lines (rug plot) show the distribution of all scholars over time (beginning of active life), including the obscure ones.

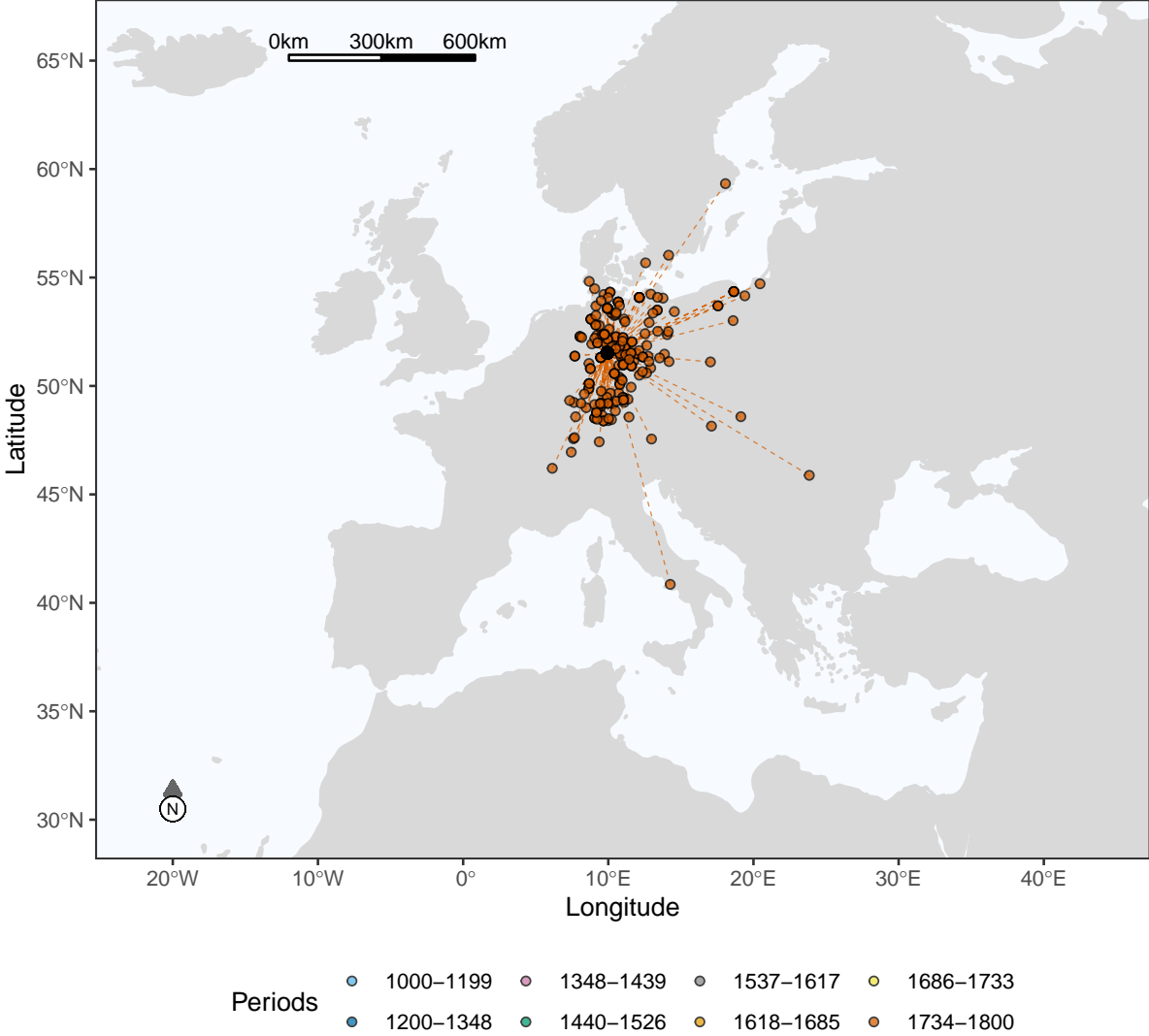


Figure 2: Places of birth of the scholars and literati at the University of Göttingen



## 7 TOP 5 PROFESSORS

We now provide a brief overview of the five professors with the highest human capital index.

**Georg Christoph Lichtenberg** (Darmstadt 1742 – Göttingen 1799) The first German professor of experimental physics was the last child of 17, of whom only five survived. He compensated his scrappy stature by a brilliant and keen mind that privileged his career as a satirist and natural scientist. After a scientific journey to London, he became extraordinary professor of physics in 1769 at the University of Göttingen. Six years later, he was promoted to an ordinary professorship, which he kept until his death. His contributions to a broad range of topics in natural science – in particular astronomy, electrical science, and the theory of gases – were honored by appointments to scientific academies in Danzig and St. Petersburg, as well as to the Royal Society. Additionally, he enjoyed literary fame for his polemics and his famous “scrapbooks.”

**Gottfried August Bürger** (Molmerswende 1747 – Göttingen 1794) is a poet of Sturm and Drang (Storm and Stress) known for his ballads and the translation of baron Münchhausen. In 1774, he married Dorette Leonhart. Attracted by her younger sister Auguste – Molly in his love poems – he had a ménage à trois and children with both sisters. After the death of Dorette, he married Auguste in 1785. Her death one year later plunged him into a deep crisis. His third marriage ended in divorce as his third wife had affairs with students. His academic career is less impressive. From 1784, he gave private lectures at the University of Göttingen. In 1789, he was appointed extraordinary professor - but without any payment.

**Albrecht von Haller** (Bern 1708 – 1777 Bern) The founder of modern physiology was among the most important Swiss universal scholars. As in the case of Georg Lichtenberg, his intellectual development compensated for his sickly stature during childhood. He studied medicine in Tübingen, and continued his studies in Leiden, Paris, London, and Basel. In 1736, he was appointed professor of anatomy, botanic, and surgery at Göttingen, where he organized a botanical garden and an anatomical theater. He refused appointments to Utrecht and Oxford, and was a member of several academies of sciences such as the Leopoldina. He was extremely productive. In medicine, for instance, he left the eight-volume standard reference *Elementa physiologiae corporis humani* and around 200 lexicon entries. He also wrote the poem *Die Alpen* and political novels.

**August Ludwig von Schlözer** (Kirchberg 1735 – Göttingen 1809) was a historian, expert in constitutional law, and statistician who studied in Wittenberg and Göttingen. Afterwards, he spent some years in St. Petersburg where he was active at the scientific academy. His edition of *The Letopis of Nestor* is his main work, a result of this period of his life. In 1770, he was appointed professor at the Georg August University where he taught history, statistics, politics, and constitutional law.

**Johann Friedrich Blumenbach** (Gotha 1752 – Göttingen 1840) The father of zoology and anthropology as comparative scientific disciplines and co-founder of scientific anti-racism studied in Jena and Göttingen. In 1776, he was appointed to an extraordinary position for medicine at the University of Göttingen. Two years later, he was promoted to an ordinary professorship. He taught at the university for almost 60 years with inspiring lectures and retired in 1835. He was well-known for his *Handbuch der vergleichenden Anatomie und Physiologie* (Handbook of comparative anatomy and physiology), which was translated into most European languages.

## 8 FAMILIES OF SCHOLARS

We counted 8 father-son pairs among the professors at the University of Göttingen. Figure 4 gives one example of a family, the Böhmers. The grandfather, Justus, was a professor at the University of

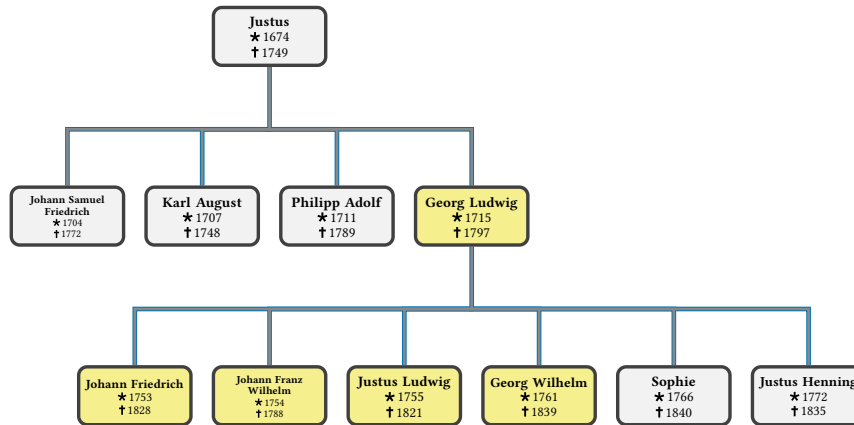


Figure 4: The Böhmer family. Professors at Göttingen in yellow squares

Halle. According to [www.geni.com](http://www.geni.com), he had four sons. Johann Samuel was a professor at Halle. Karl August worked in the Prussian administration. Philipp Adolf was also a professor at the University of Halle, and member of the Royal Prussian Academy and the Leopoldina. Georg Ludwig was a law professor at the University of Göttingen. He had five male children, and one girl. Among them, four were professors at the University of Göttingen, three in law and one in medicine.

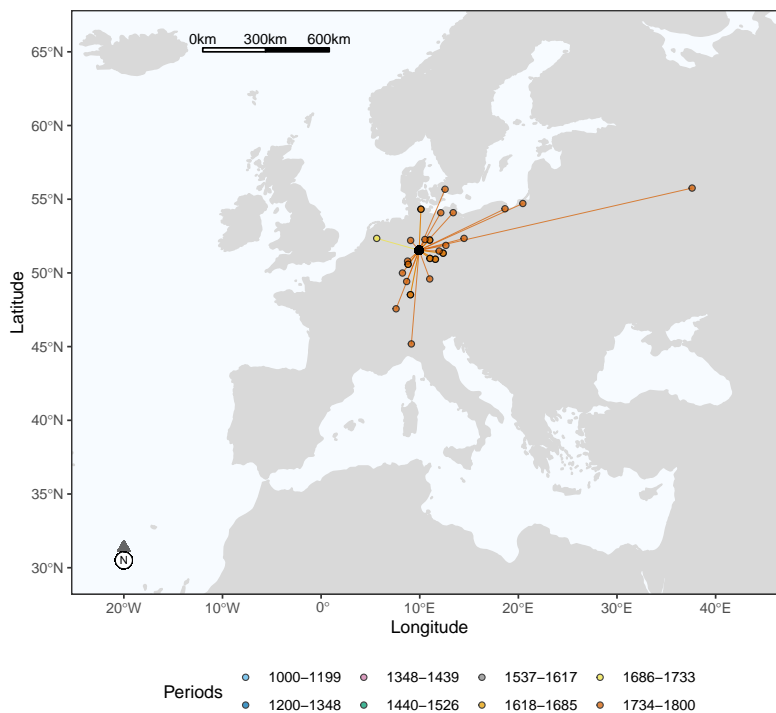


Figure 5: Links between Göttingen and other universities through scholars' mobility, by period

## 9 UNIVERSITY NETWORK

Here, we assume that when a professor occupied a position in more than one university over his/her life, this established a link between those universities. The universities with which Göttingen is linked are displayed in Figure 5. The long-distance links seem to shrink over time, except those with the Imperial University of Moscow. This indicates the attractiveness of the university when it was founded.

## 10 INTERSECTIONS WITH THE ACADEMY

Figure 6 shows that many members of the University of Göttingen were also members of the Academy of Sciences of Göttingen (Akademie der Wissenschaften zu Göttingen), founded in 1752 (from Krahnke (2001)). This is a strong case of close connections between a university and the local academy.

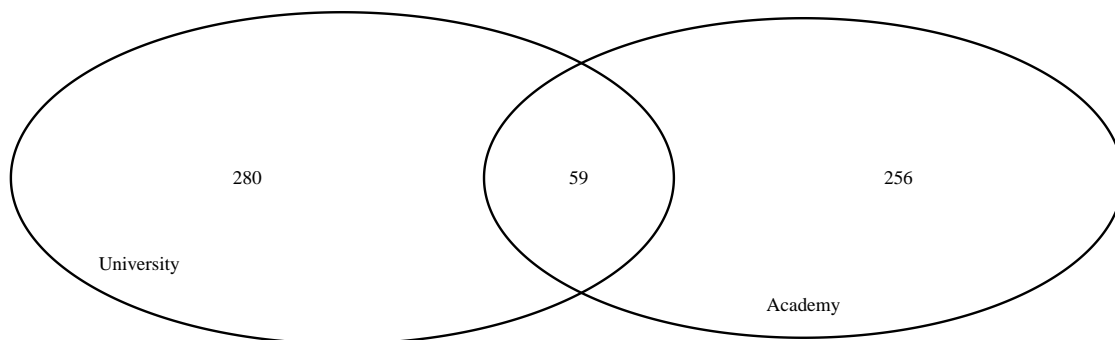


Figure 6: Intersections of the lists of scholars between the University of Göttingen and the Academy of Sciences of Göttingen

## 11 ANECDOTES

The only surviving daughter of August Ludwig von Schlözer, Dorothea von Schlözer, was the first woman to earn a doctor of philosophy degree at the University of Göttingen in 1787.

Gottlieb Jakob Planck (1751–1833), a professor of the history of Christianity from 1784 until his death, was the great-grandfather of Nobel Prize winner in physics Max Planck.

## APPENDIX

The individual human capital index  $q_i$  of an individual  $i$  is given by:

$$q_i = -1.76 + 0.43 \ln(\text{nb. characters of the longest Wikipedia page}) \\ + 0.40 \ln(\text{nb. Wikipedia pages in different languages}) + 0.47 \ln(\text{nb. works in Worldcat}) \\ + 0.46 \ln(\text{nb. publication languages in Worldcat}) + 0.47 \ln(\text{nb. library holdings in Worldcat})$$

We assume that having no Wikipedia page is similar to having one page with a length of 60 characters and that having no Worldcat page is similar to having a page with one work in one language held by one library. The constant  $-1.76$  normalizes  $q_i$  at 0 when there is neither a Wikipedia page, nor a Worldcat page. The weights (0.43, 0.40, etc) are obtained from the first principal component of the five indicators (De la Croix et al. 2020).

The notability  $Q$  of a university aggregates the  $q$  of the top 5 individuals who were active in the preceding 25 years using the following formula:

$$Q = \sqrt{\sum_{i=1}^5 \frac{1}{s_i} \left(\frac{q_i}{s_i}\right)^2}$$

where  $s_i$  is the number of universities at which  $i$  had an appointment.

## ACKNOWLEDGMENTS

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