The project Repertorium Academicum Germanicum (RAG) is likely to be of some relevance to the topic of this book.¹ The RAG database contains all graduate scholars who have been awarded a Master’s degree of the Faculty of Arts or a Bachelor’s or Licentiate or a Doctorate from one of the higher faculties of law, medicine or theology at a university in the German Empire or in Europe. Scholars – in sense of RAG – are also those who had studied at one of the higher faculties without, however, taking an examination followed by a doctorate, many of whom were noblemen. They saw themselves socially equal to the masters of Arts. We expect more than 60,000 scholars of this kind between 1250 and 1550. These 60,000 were at the head of more than 300,000 students from the Empire up to the middle of the 16th century, what means 20 percent. For the authorities of the university, these 20 percent were, in their own estimation, the academic elite, precisely because they had created the degrees as their own academic-cultural status system parallel to the social codes of the society.²


² For the graduation system see R. C. Schwinges (ed.), Examen, Titel, Promotionen. Akademisches und staatliches Qualifikationswesen vom 13. bis zum 21. Jahrhundert, Basel, Schwabe (Veröffentlichungen...
The fact that such figures can be cited is fundamentally linked to the excellent sources: for instance, the corresponding matriculation registers of the rectors and the other university and faculty registers, including those of the so-called German nations in France and Italy, are preserved and accessible in a great abundance. Elsewhere in Europe, especially in Italy, Spain, Portugal, France and England, these nearly always-serial sources are missing before the second half of the 16th century, so that we can compare only very carefully. First, we will talk about some basics, then in a second part about the influence of degrees in society and thus about the long-standing question of what the asserted academization and professionalization, based on university education, really looked like.

Some basics

Academic degrees are as old as the university itself and - barely developed - they helped fundamentally to give legitimacy to the new educational format. This, of course, is the insight of the historian who looked back; it took a great deal of conviction on the part of all those involved and a great deal of time before it was ready. While the study and organization within the university from degree to degree and the status academicus are relatively well known, and the actual practice of the procedures is already much less well known, there is still a lack of research on the non-university aspect, on the status or effectus civilis, in particular on the many persons, who acquired academic degrees, who brought their knowledge and skills into society, gained prestige and were accepted with their degrees or because of their degrees. Last yet not least, the sheer mass of cases and persons in the Roman-German Empire alone, as we saw above, makes research difficult on its own.

When universities were established north of the Alps, Prague, Crakow, Vienna, Heidelberg, Cologne, Erfurt, Leipzig, Rostock, Leuven, they were immediately accepted by the society. The numbers of students and graduates has been rising steadily since the end of the 14th century. With a growth rate of 1.75 percent per year since 1400 and a total capacity of approximately 4,000 new university attendees per year, these universities generated a previously unknown capacity
in the 1480s and 1490s already (graphic 1). For the period up to 1550 the above-mentioned 300,000 persons are reached, among them the 60,000 graduates magistri and doctores, who are considered in the RAG. Such growth had also attracted the attention of contemporaries. More or less friendly proverbs were already circulating (gelehrt – verkehrt, scholarly - perverse), a sure sign that magistri and doctores had arrived in society. However, around 1520 (graphic 1), there was a so-called frequency collapse due to the Reformation events. This had less to do with the hostility to science of the early Reformers than rather with the fact (probably the main fact) that now the church benefices and thus scholarship grants abruptly broke away. For a long time (nearly 40 years), university attendance and graduation were nearly made impossible for many students. Up until then, however, the supply of university-educated people was growing more and more, and the new universities that emerged during the second half of the 15th century (Greifswald, Freiburg, Basel, Ingolstadt, Tubingen, Wittenberg) also recruited ‘educational reserves’ from their regional environment.

Graphic 1: The frequency of the universities of the Empire 1385-1600
Source: Beat Immenhauser, n. 5

The statement that we are dealing with 20 percent graduates in Germany implies, of course, that the vast majority did not graduate, or at least did not strive for a Master’s degree. In fact, the lowest degree of a baccalarius artium acquired a maximum of 30 percent (that is about 100,000 people added up to 1550). In other words, at least 50 percent of German university attendees have never earned a degree and obviously did not want to do so, although the university authorities always pushed for their own financial and profile interests their *scholares ad gradus*.  

However, the push success of the authorities seems to have been mixed when comparing the graduations of the four faculties with each other, even there, where a degree in the arts, in law, medicine or theology was really earned. Graphic 2 clearly shows the different frequencies of graduations at the different faculties between 1350 and 1550 at German and foreign universities, in comparison of the four faculties artes, law, medicine and theology.

![Graphic 2: Frequencies of graduations earned from the faculties of arts, law, medicine and theology at German universities 1350–1550](source: RAG)

It is immediately apparent that the graduations followed the general frequency of university attendance shown earlier and highlighted the beginning of the Reformation period. However, to an extraordinarily high degree the artists are responsible, both for decades of growth and for the Reformation collapse. Physicians and theologians were at a known low level, but in principle, they participated in the growth. However, it is surprising that jurist’s frequency stagnated throughout Germany from the 1430s until around 1510 with their degrees and doctorates, when one might have expected an increase. Until 1550, one even recognizes a slight decrease. Even the largest law faculty in the German empire, that

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of Cologne University (with ca. 15 percent of students), shows this phenomenon. To explain this, one could first assume that purely institutional or organisational reasons were responsible for this stagnation in legal studies. It is possible that the direct access to the law faculty was replaced more and more by the artistic ‘cursus’ from the Bachelor’s to the Master’s degree. However, this would be too modern, because even after several generations of university history there was still no systematic compulsory training sequence. It could be transformed at any time, even far into the early modern period, by other qualities - social qualities as a rule. We still do not have a convincing explanation, unless a visualization of the same phenomenon could say something more (graphic 3).

Graphic 3: Graduations from European universities (1350–1550) according to the faculties: arts, law, medicine, theology

Source: RAG

As the map shows, German universities produce an overwhelming number of graduate artists, but few others. Above all the foreign universities in Italy and France provide assistance in the education of jurists and doctors of medicine. Apparently, however, they are producing a clientele that is more self-sufficient than focused on growth. Anyway, one thing remains clear: unlike France and Italy, which were much more legal countries, academic Germany was above all a country of artists, with all the consequences for the penetration of the country with artistic knowledge in humanities and sciences, about which one can only speculate. In the future, the RAG will endeavour to take greater account of the knowledge component based on reliable quantitative principles. For, as we already know, we are dealing with different university cultures in Europe.\(^8\)

**The influence of degrees**

When we talk about academization, that is, the intrusion of graduate scholars into society, we should consider the following important points: The growing supply of university attendees from the 14\(^{th}\) to the 16\(^{th}\) century was not yet matched by adequate demand, neither at royal and princely courts nor in the cities, schools, offices and law courts, nor in the church. It is an old insight that academic growth was not immediately a success story of universities, having produced new qualities of professional activity or even professionalization. Nevertheless, it is expectable that occupational fields have emerged in which academic knowledge acquired at universities could be effectively and beneficially implemented. Our thesis has long been that something like a pure ‘market-supply pressure’, including the massive pressure exerted by the artists, has set things in motion and expanded professional opportunities, so that the penetrating academically educated personnel ultimately also defined the areas of responsibility for themselves.\(^9\) This, we consider to be extremely important for the future. However, all this happened under great regional fluctuations with corresponding time delays both within and outside the Empire.

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In order to make these different regional developments visible and comprehensible, the degrees of the scholars are visualized on maps, based on the Software Nodegoat.\textsuperscript{10} The RAG research team not only analyses biographies of individual scholars or groups, but also evaluates the data in all directions, for example by institutions.\textsuperscript{11} In addition to the university, these are the church, the court, cities, judiciary or schools. The institutions are analysed from two sides, from the perspectives of ‘incoming’ and ‘outgoing’.\textsuperscript{12} For the university, for example, it examines which scholars and groups visited the universities, what knowledge (degrees, fields of studies) they acquired there, what positions the scholars achieved at the university and later in society. The goal is to measure the impact of academic personnel and its knowledge on society and economy, especially on the new establishing labour market for graduated scholars. Graphic 4 shows therefore the positions and activities of the scholars with a graduation degree and their spatial


\textsuperscript{11} See examples of the analysis and visualization possibilities for the RAG data in Nodegoat in the latest volume of the RAG series: Gubler, Schwinges (ed.), \textit{Gelehrte Lebenswelten...}, op. cit.

\textsuperscript{12} Schwinges, “Doctores...”, art. cited, p. 11.
distribution within the old Empire. The positions and activities are coloured according to the graduation degrees within the timeframe 1350–1550.

It is obvious that the artists (green), jurists (red), physicians (blue) and theologians (black) concentrate on certain spaces. It also becomes clear that not a few scholars were active outside the empire, in France and Italy as expected, but also in England and Scotland. The activities in the east of the empire show the influence of the universities of Krakow and Vienna. Regarding the disciplines shaping the spaces, the artists are concentrated in the southwest of the Empire and in the Cologne-Netherlands-area, which belong to the densely populated ‘spaces of innovation’ along the Rhine. Differently, the jurists are distributed more evenly throughout the Empire and especially outside the Empire. In principle, the visualization also represents the influence of the university faculties in Europe from a social and economic point of view, which the RAG will examine in more detail in the future in order to raise the various European knowledge spaces, which have so far only been partially visible. Quantitatively, the jurists seem to be able to keep up with the artists on the map, but a glance at the time axis (graphic 5) corrects this immediately.

The growth rate of jurists stagnated from the middle of the 15th century consequently also in the labour market in the German Empire, quite in contrast to the artists. This underlines a saturation of the demand for graduated jurists in the labour market, which does not yet seem to have been ready for integrating them. In contrast to artists and jurists, theologians and physicians recorded as well constant growth rates in the 15th century, but at a lower level. The above

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13 For the innovation spaces see with further notes: R. C. Schwinges, “The Repertorium Academicum Germanicum (RAG) and the Geography of German Universities and Academics (1350–1550)”, in P. Meusburger et alii (ed.), Geographies of the University (Knowledge and Space 12), Cham, Springer, 2018, p. 23-42.
mentioned frequency decline at universities can also be recognized in the positions and activities here, with the artists collapsing the most due to the reformation, theologians and jurists a little less, and remarkably little the physicians. The fall of the curve towards 1550 has to do with the fact that the RAG project only records the data up to this point in time.

The spaces of interest, seen on the general overview of the positions and activities, can be further subdivided for example by institutions such as churches and towns. Thus, the example of jurists deals to check whether their stagnation can also be detected in these institutions. Graphic 6 reveals the opposite for the Church, presenting the positions and activities in the Church, separated again according to graduation degrees.

Graphic 6: Positions and activities of scholars within the Church 1350–1550:
artists, jurists, theologians, physicians
Source: RAG

Graphic 7: Positions and activities of scholars within the churches of the Empire (nobility and jurists) 1350–1550
Source: RAG
Two observations are particularly significant. The parallel growth rates of artists (green) and jurists (red) up to the middle of the 15th century and the contrary movement in the following period. The Church had obviously become less attractive to graduate jurists. They had to reorient themselves in the labour market. Together with the observation that the number of graduate jurists stagnated in the 15th century, these two developments point to a labour market that was still poorly consolidated. However, who replaced the graduated jurists in the Church? Clearly the artists, but also a special group of artists and jurists: the nobility (graphic 7).

The increasing number of noblemen studying in the 15th century represents, on the one hand, the well-known general trend that the nobility had to study ever longer ever more to stabilize their own social position. On the other hand, it underlines the trend that the nobility moved more strongly into church activities than before, not only in the collegiate church, but obviously also in the parish churches. The nobility thus tried not only to secure its social position through a secular career, but also through a career in the Church.

As the Church’s demand for graduated jurists declined, it grew at the royal and princely courts and in towns. The increasing number of scholars in all fields of study represents an academization within the municipal society during the 15th century and the decades of the 16th century in general (graphic 8). It also stands for the demand for graduated scholars in the town administration as well as for the potential influence of academics within politics. However, availability and practical application of academic knowledge could vary from town to town, especially in political bodies and positions.


For a general overview see Moraw, “Careers of Graduates...”, art. cited.
While this graphic gives more of a general impression of academization, the demand of the towns can specifically be analysed for certain professional positions, for example, the central position of a graduate town clerk (the senior official of the town chancellery) whose scholarly knowledge and general skills could have a correspondingly strong impact on administration and politics. For the town clerk the spatial distribution in the Empire shows a concentration in the southwest, spreading then along the Rhine and only later eastwards (graphic 9). It is no coincidence that these regions stand out. Other evaluations of the RAG data also show concentrations of scholarly activities along the Rhine, due to the universities of these regions, such as Basel, Freiburg, Heidelberg or Cologne, due to the big economically strong towns and the rich churches, shaping these densely populated ‘innovation spaces’. Regarding the group of town clerks in the RAG, it must be pointed out, that it stands for an educated elite, which has at least attend one university within the Empire, achieving at the minimum the degree of a Master of Arts (green) or a degree of the faculty of law (red). Certainly, in many places there have been scribes without any academic education, or those who attended university but did not graduate, or those who acquired only the lower bachelor’s degree. Nevertheless, one can see that in the cities of the South (Upper Rhine, Swabia, Franconia and Bavaria) as well as in Central Germany more academically educated town clerks (Master and more) were employed than in the North and the East of the Empire.

Graphic 8: Positions and activities of scholars within the towns of the Empire 1350–1550
Source: RAG
Demand from town administration for graduated scholars, however, changed over time. The general development shows, that at first, the towns hired graduated jurists as town clerks, but replaced them later with artists or non-academic personnel, hiring again town clerks who had learned their work in practice. The town clerk therefore is an example to demonstrate, that we cannot expect as an impact of the universities a constant and overall academization of the labour market nor of the society. However, it should also be noted that the presence of academic knowledge still says little about its implementation in practice. The RAG will pursue this question and will examine the concrete effects of the dissemination of knowledge by scholars in society and in the field of education making the European academic knowledge spaces visible in its various forms. This leads to the conclusions.

Obviously, until well into the 16th century there were hardly any structural and above all personnel continuities. It is not possible to require academic

Cf. the example of the town of Freiburg in Breisgau and the famous jurist and town clerk Ulrich Zasius: Schwinges, "Doctores...", art. cited, p. 17-18.
qualification for occupying certain positions, simply because they had once held graduate scholars. Everything actually always depended very much on those persons who were just available or offered themselves. Scholarly and official dynasties, which incorporated the study into their family strategy, were still in their beginnings. It is also problematic that there are always individuals in the fields of activity mentioned who have left the universities without any graduation or have never even attended a university, and in at least as large a number as those who have been graduated. There have always been alternatives to the academic. In any case, it was a lengthy process until learned personnel prevailed and were accepted as experts with their ‘graduate knowledge’ acquired at university in such a way that their positions or professional fields could no longer be challenged by others.