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The Humboldtian Model of Higher Education and its Significance for the European University on Responsible Consumption and Production

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Abstract: This contribution describes the origins and essential characteristics of the Humboldtian Model of Higher Education. It also shows how this model can be integrated into the European University on Responsible Consumption and Production (EURECA-PRO). Wilhelm von Humboldt and his team developed the innovative Humboldtian Model of Higher Education in Humboldt's native Prussia between 1809 and 1810 in order to totally reform the education system. After founding the University of Berlin in 1810 and with the support of leading young scientists cum professors, Humboldt intended to implement this new model of tertiary education. The Humboldtian Model requires that universities govern themselves, have academic freedom, and integrate education and research. As a consequence, science is unified and all academic disciplines are present within a given university. This model also calls for university-wide interaction and for all university members to communicate such that students become integrated as researching learners and learning researchers through close co-operation with their teachers. With the emergence of the neoliberal university model in the 1990s, key elements of the Humboldtian Model have been complemented by university obligations to meet expectations from government, the business community, and society at large with regard to the usefulness and benefit of university research and educational outputs. This contribution concludes by discussing the potential of implementing the Humboldtian Model of Higher Education within EURECA-PRO.

Keywords: Wilhelm von Humboldt, Prussian reform, Humboldtian University Model, Academic freedom, University self-governance, Integration of education and research, Unity of science, Neoliberal university model

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Die Bedeutung des Humboldtschen Universitätsmodells für die Europäische Universität für verantwortungsvollen Konsum und verantwortungsvolle Produktion.

Zusammenfassung: In diesem Beitrag werden die Entstehungsgeschichte und die wesentlichen Merkmale des Humboldtschen Universitätsmodells dargestellt. Es wird auch ein Konzept zur Integration dieses Modells in EURECA-PRO, der europäischen Hochschulallianz für „verantwortungsvollen Konsum und verantwortungsvolle Produktion“, aufgezeigt.

Am Anfang, von 1809 bis 1810, standen Wilhelm von Humboldt und sein Team, die ein innovatives Konzept für eine ganzheitliche Reform des preußischen Bildungssystem vorlegten. Insbesondere in der neuen Berliner Universität, die Humboldt 1810 gründete, wollte er sein Konzept im Bereich der universitären Ausbildung mit Unterstützung jüngerer namhafter Professoren umsetzen. Später wurde es als das Humboldtsche Universitätsmodell weltweit bekannt.

Es impliziert die Selbstverwaltung der Universität, die Freiheit und die Integration von Forschung und Lehre, die Einheit der Wissenschaften, den Betrieb aller akademischen Disziplinen an einer jeden Universität und eine hochschulweite Interaktion und Kommunikation aller Angehörigen. Nicht zuletzt fordert das Modell die Einbeziehung der Studierenden als forschende Lernende und lernende Forscher in einer engen Zusammenarbeit mit ihren Dozenten.

Ab den 1990er-Jahren entstand das so genannte Neoliberale Universitätsmodell. Es bedeutete eine Ergänzung des Humboldtschen Modells, indem Universitäten aufgefordert wurden, die Erwartungen von Regierungen, der Wirtschaft und der Gesellschaft in Hinblick auf den Nutzen ihrer Forschungsarbeit und Bildung zu erfüllen.

Der Beitrag schließt mit einer Übersicht über die Möglichkeiten, das Humboldtsche Universitätsmodell in EURECA-PRO, die europäische Hochschulallianz für „verantwortungsvollen Konsum und verantwortungsvolle Produktion“, zu integrieren.

Schlüsselwörter: Wilhelm von Humboldt, Preußische Reformen, Humboldtsches Universitätsmodell, Universitäre Selbstverwaltung, Freiheit und Integration von Forschung und Lehre, Einheit der Wissenschaften, Neoliberales Universitätsmodell

1. Introduction

This contribution introduces the potential benefits of implementing the Humboldtian Model of Higher Education within the European University on Responsible Consumption and Production (EURECA-PRO). Information related to EURECA-PRO can be found on the EURECA-PRO Website [1]. Here we focus on showing how key elements of the Humboldtian Model can be integrated into EURECA-PRO.

The contribution is structured as follows: first, a short historical overview of the so-called Prussian Reforms and their consequences for educational reform, focused on Wilhelm von Humboldt's contributions, is given. Next the Humboldtian Model of Higher Education is described. The final section contains an overview of the possibilities presented by implementing this model in EURECA-PRO.

2. History of the Humboldtian Model of Higher Education

Named after Wilhelm von Humboldt¹ (1767–1835), this model was designed in the Kingdom of Prussia from 1809–1810 to reform the entire educational system (from elementary through secondary school and up to tertiary education). Fig. 1 shows a postal stamp of Wilhelm von Humboldt standing in front of Humboldt University in Berlin, with its design based on the statue made by Paul Martin Otto (1846–1893).

The Kingdom of Prussia, constructed as a militarily-dominated state by King Frederick William I, the “Soldier King” (1688–1740), and expanded by his son King Frederick I “the Great” (1722–1786), had come to an inglorious and definitive end after Napoleon Bonaparte’s occupation of Berlin in 1806. Wilhelm von Humboldt was Ambassador of Prussia to the Holy Chair in Rome in 1806 and therefore learned of these dramatic changes while far from home. He then wrote to Karl August von Hardenberg (1750–1822), Minister of State charged with Matters of Foreign Affairs of Prussia (Fig. 2), that he had never had big ambitions and was satisfied with his current position in Rome. Humboldt added, however, that he had come to feel embarrassed (“peinlich”) by his inability to do anything for his beleaguered Fatherland.

Ich war niemals ehrgeizig oder interessiert und zufrieden mit dem Posten in dem Lande, das ich bewohne und das ich liebe und habe weder gesucht noch gewünscht, in eine andere Lage zu kommen, aber jetzt ist es mir peinlich, hier

¹ For biographies of all historical persons mentioned in this contribution, readers are advised to consult any of the numerous websites on the internet, for example [2–6].



Fig. 1: Wilhelm von Humboldt



Fig. 2: Karl August von Hardenberg, painting by Friedrich Georg Weitsch, after 1822

müßig zu sein und nichts für das bedrängte Vaterland tun zu können [7].

Prussia’s government was not impressed: Humboldt stayed in Rome until he was permitted to travel to Berlin on temporary leave to settle some private business. It turned out, however, that he was to stay in Prussia and would



Fig. 3: Karl Freiherr vom Stein, painting by Johann Christoph Rincklake, 1804

become head of a new department of education ("Sektion des Kultus und des öffentlichen Unterrichts").

After Prussia's defeat to Napoleon, especially in the battle of Jena and Auerstedt (14 October 1806), Hardenberg and Heinrich Friedrich Karl Reichsfreiherr von und zum Stein (1757–1831) [8] initiated the so-called "Prussian Reforms." Re-appointed Minister of State in 1807 after being abruptly dismissed as Minister of Finance and Economic Affairs for refusing to accept Napoleon, Karl Freiherr vom Stein is shown in Fig. 3.

The main purpose of the Prussian Reforms was to revitalise and modernise the entire Prussian State (or at least what was left of its territory). Measures included the abolition of serfdom of farmers, freedom of enterprise and occupation, the self-governance of cities by elected representatives and, importantly in the context of this contribution, compulsory education for all children. Citizens, no longer subjects, should be able to strive for freedom and liberty and to develop their talents based on a sense of personal responsibility. In this way, they would generate new resources for the state and the nation.

On the one hand, achieving this modernisation required enhancing patriotism, nurturing sympathy for the "fatherland," and stoking citizen's national pride. On the other hand, a more practical valorisation of citizenship as a moral category ("Bürgersinn") was called for that. This required the mobilisation of dispersed knowledge ("zerstreut liegende Kenntnisse") and wrongly-directed forces ("schlafende und falsch geleitete Kräfte"). Meanwhile, the

spirit of the nation ("der Geist der Nation") including its perceptions and needs should be brought into balance ("im Einklang stehen") with those of the Public Administration.

Within this context, Humboldt was called upon to resume responsibility by applying these principles to a fundamental reform of the nation's education system [9]. Initially, after receiving his letter of appointment at the end of 1808, Humboldt was not pleased; he even asked King Frederick William III (1770–1840) [10] for permission to return to his diplomatic duties in Rome, arguing that his family was still there.

Humboldt's chief reluctance, however, was his fear that his ideas for reform would not be welcomed. Humboldt deeply believed in freedom at a time in which it was certainly not the dominant principle guiding the state or the nation. Indeed, the French next door had "needed" a revolution in order to establish its importance. Already in 1792, sixteen years earlier, Humboldt had published a paper entitled *Ideen zu einem Versuch, die Grenzen der Wirksamkeit des Staats zu bestimmen* ("Ideas about an Attempt to Determine the Limits to the Effectiveness of the State"). Fig. 4 shows the front page of this paper.

Humboldt's main argument was that any human being's true and real motivation is self-fulfilment and that freedom

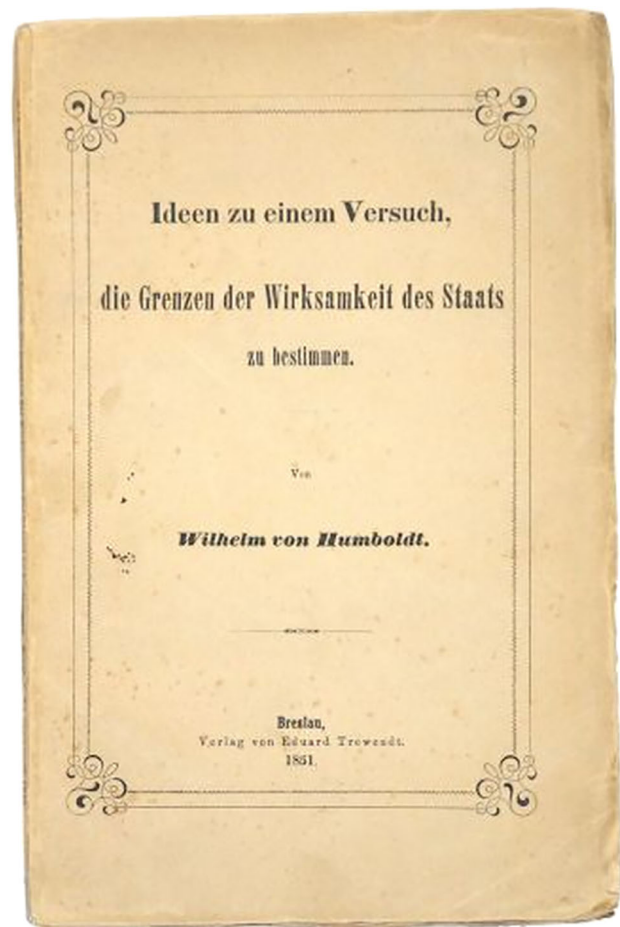


Fig. 4: Title page of "Ideen zu einem Versuch, die Grenzen der Wirksamkeit des Staats zu bestimmen" by Wilhelm von Humboldt in an edition of this publication printed 59 years after its writing in 1792 [17]

Fig. 5: The University of Berlin, steel engraving by F. Hirchenheim



is the primary and indispensable condition for it. To the extent that humans strive for this fulfilment and thereby combine their unique competences and abilities, society will benefit. Therefore, any state that interferes with these human desires and competences will be on the loser's side and citizens of that state will be degraded to subjects ("Untertanen"). A state which limits the free development of abilities ("das freie Spiel der Kraefte") denies its citizens humanity and attempts instead to make machines out of humans (sic!, his words!) [11].

230 years after publication, current developments in many parts of the world seem to justify the relevance and validity of Humboldt's views. In any case, Humboldt's request to return to the Holy Chair was rejected and, on February 20, 1809, he received his appointment as Privy Council ("Geheimer Rat") and Head of the Department of Education under Minister of the Interior Friedrich Ferdinand Alexander Burggraf und Graf zu Dohna-Schlobitten (1771–1831) [12]. Having been educated by private teachers (Humboldt had been fluent in ancient Greek at the age of 13!) on the family estate and consequently lacking personal experience in school education, Humboldt assumed his new responsibilities with speed and vigour and was able to appoint excellent minds to his department.

The team he created presented a concept for an education system with three levels: (i) elementary schooling, (ii) secondary education ("Gymnasium"), and (iii) university education. This system is currently practiced worldwide. The concept was described and explained in two documents entitled "Koenigsberger Schulplan" and "Litauischer Schulplan," [13] now important parts of the history of German education. In line with Humboldt's conception of freedom, his educational concept sought to provide for

a general education of humanity rather than focusing on mere vocational or professional training within a hierarchical society. Implicitly, Humboldt promoted the idea of life-long learning. In an 1809 report to the king, Humboldt, in a remark that has become one of his famous quotations, said that anyone with a general, enlightened education in humanity and citizenship, be they a craftsman, salesperson, soldier, or businessman, could easily acquire the skills needed for their job while maintaining the freedom to move from one profession to another as life called for² [11, 18]. In his view, a general education provides the foundation for learning professional qualifications and skills (and not the other way around).

In practice, however, Humboldt's administrative position below the Ministers of the State Council meant he was unable to implement his concept due to bureaucratic hurdles. He submitted a request for resignation from office as soon as 1810. After leaving the field of education policy, Humboldt was offered the much higher-ranking position of Ambassador to the Court of Vienna which, later on, gave him ample opportunity to use his diplomatic talents (for example during the Congress of Vienna after Napoleon's Waterloo defeat). Humboldt's legacy as Head of the Department of Education consisted mainly of policy papers and

² "Es gibt schlechterdings gewisse Kenntnisse, die allgemein sein müssen, und noch mehr eine gewisse Bildung der Gesinnungen und des Charakters, die keinem fehlen darf. Jeder ist offenbar nur dann ein guter Handwerker, Kaufmann, Soldat und Geschäftsmann, wenn er an sich und ohne Hinsicht auf seinen besonderen Beruf ein guter, anständiger, seinem Stande nach aufgeklärter Mensch und Bürger ist. Giebt ihm der Schulunterricht, was hierfür erforderlich ist, so erwirbt er die besondere Fähigkeit seines Berufs nachher so leicht und behält immer die besondere Fähigkeit seines Berufs nachher so leicht und behält immer die Freiheit, wie im Leben so oft geschieht, von einem zum andern überzugehen" [11, 18].

education plans ready for implementation. Lasting traces of his efforts to reform education in Prussia can be found in his suggestions for:

- compulsory education for school children
- an obligatory final exam for secondary education teachers
- a uniform final exam for secondary school pupils (“Abitur”)
- a curriculum for secondary education
- the foundation of Berlin University in 1810, where he appointed famous and competent scientists as professors

Especially within the new Berlin University, which was re-named Humboldt Universitaet in 1949, he intended to implement his concept of tertiary education. This concept became known as the Humboldtian Model of Higher Education much later in the nineteenth century. This is described in the next section. Fig. 5 shows Berlin University around 1850.

3. The Humboldtian Model of Higher Education

Put simply and concisely, a holistic combination of research and education is at the centre of the Humboldtian Model. This manifests primarily in two ways: arts and sciences are integrated with research to result in general learning and acquisition of cultural knowledge. Simultaneously, student-professor interactions change radically.

Humboldt’s model incorporated basic ideas of the Enlightenment period. First, students should develop into self-confident individuals and world citizens. In that capacity, they would not only acquire professional and technical skills but, above all, would build their own character and personality. This comprehensive development would be the outcome not only of formal education, but, more generally, of comprehensive Bildung.

As mentioned above in the quotation asserting the importance of life-long learning, the Humboldtian Model of Higher Education is not interested in and does not expressly prepare its students for employment, business opportunities, or to fulfil the needs of the state or of society. Since Bildung and life experience will empower graduates, they should subsequently be able to arrange their professional lives by themselves.

By proceeding in this way, Humboldt positioned his system as an alternative to the higher education system developed after the French Revolution that, in 1792, led to the closure of all French universities (some of which were only reopened by Napoleon in 1808). Over time, new schools, currently known as Grandes Ecoles [14], were founded in France. These schools are commonly dedicated to a single specific academic discipline, such as agriculture, forestry, mining, public infrastructure, business, public administration, natural sciences, literature, or language studies. Attendees are called élèves, not students, and are expected to develop an esprit de corps instead of a Humboldtian individual personality. The main objective of the Grandes

TABLE 1
Key characteristics of the Humboldtian Model of Higher Education

Key Characteristics	
<i>Learners (Students)</i>	
	Individual learning in the centre
	Reasoning capability
	Free choice of educational opportunities
	Individual personality development
	Free interaction with other educated persons
	Communication as a tool of interaction
	Language skills for communication
	World citizen
<i>Teachers</i>	
	Enabling academic studies and not teaching merely to professional skill development
	Research for the sake of science and not for society or economic motivations
	Integration of students in research projects
	Enabling personality and student development as humans through scientific practice
	Continuous interaction and communication within the university
	Protecting freedom of education and freedom of research
<i>Education System</i>	
	Academic freedom
	Unity of education and research
	Bildung instead of professional skills training
	Does not focus on employability
	Integration of education and research
	Unity of science and presence of all academic disciplines
	Independence from any state intervention, even if depending on state funding
	Self-governed institution

Ecoles is the creation of competent professionals, initially to fulfil the needs of the state and later also those of industry, commerce, and society. Grandes Ecoles are not focused on the purpose and benefit of Bildung. In Humboldt’s days, the number of admitted élèves was determined by the number of fresh employees required by the state and applicants were (they still are) selected based on specific exams named Concours. Obviously, this higher education system differs greatly from the Humboldtian model.

An essential tool for successful students in the Humboldtian model is the ability to choose their own way and to thereby develop individual reasoning capability. As a condition for this outcome, Humboldt followed Immanuel Kant (1724–1804) [15], whom he admired, and deemed academic freedom to be essential. Moreover, students as learners should develop communication skills. In other words, they should use language properly to interact with each other. This corresponds to Humboldt’s concept of a world citizen, and to his own linguistic research.

In addition, all student-teacher interactions should exhibit a co-operative approach toward the development of

knowledge. Students should not behave as mere passive receivers of existing knowledge transmitted to them by their teachers in traditional oral communication. Instead, they should participate as junior partners in their teacher's research activities. As a result, the so-called seminar became the key academic education forum in which teachers gather with small groups of students to discuss research topics. This novelty meant that teachers themselves conducted research—in Humboldt's days by no means an established academic reality.

In determining and organizing their research, teachers were not to be guided by any state restrictions, suggestions, indications or orders; they were to operate independently from any particular societal, industrial or commercial interests. Research should thus be undertaken for the sake of science, the advancement of knowledge and the improvement of teaching. Students should be involved in research activities as early as possible to the greatest extent possible based on their own development. This novel Humboldtian framework that called for the integration of education and research led to what are known today as research universities.

Table 1 contains a summary of the key characteristics of the Humboldtian Model of Higher Education.

4. Application of the Humboldtian Model of Higher Education in the Context of European University Alliances: The Case of the European University on Responsible Consumption and Production (EURECA-PRO)

It should be mentioned at the outset that the Humboldtian model has never been fully implemented—certainly not in Humboldt's times, and also never since. Even so, it has

served as a powerful source of inspiration for higher education institutions in German-speaking countries and beyond.

Over time, and especially since the 1990s, universities once more experienced a changing view of society and of the role and responsibilities of a university within it. The result of these changes has been "the neoliberal university." Troiani and Dutson [16] comment on this development as follows:

"The neoliberal university has taken hold in many developed countries and has shifted the imperatives of higher education from a liberal, openly accessible, broadly-based education without time pressure to a more vocational focus mindful of commercialisation and marketisation of teaching and research for industry and business. This shift in purpose emerged from an attack on, and a subsequent disempowering of, the academic, who went from being an untouchable 'sacred cow' immune from questions to being quickly made accountable."

As a result, several elements of the Humboldtian model are becoming obsolete or are being re-interpreted, especially those concerning the connection between the state and universities (in particular state universities). While academic freedom and self-governance remain strongly emphasised, governments, the business community and society at large now nurture expectations around the usefulness and benefits of the research and educational outputs of universities. In particular, state and international, public grant givers increasingly include conditions about such usefulness and benefits in their tenders. Proposal writers in universities are very much aware of this. Ministries of Education, for example, request that new study programmes meet employability criteria for graduates. In addition, professorial application processes are now geared toward the appointment of personalities with well-established networks outside of academia.

TABLE 2
Implementation of key characteristics of the Humboldtian Model of Higher Education into EURECA-PRO

Key Characteristics	Potential Application within EURECA-PRO
<i>Learners (Students)</i>	
Focused on individual learning	Students are at the core of EURECA-PRO study programmes Study programmes allow for electives and free electives Study programmes contain mobility options with partner universities
Reasoning capability developed	Training of scientific skills
Free choice of educational opportunities	Study programmes allow for electives and free electives Study programmes contain mobility options with partner universities
Individual personality development	European studies Cultural studies Language courses Scientific and practical skills training
Interaction with other educated persons	Summer schools PhD Journeys International conferences
Communication as a tool of interaction	Exchanges with partner universities Summer schools
Language skills for communication	Language courses Courses on scientific communication and academic paper writing
World citizen	Exchanges with partner universities International conferences

TABLE 2
(Continued)

Key Characteristics	Potential Application within EURECA-PRO
Teachers	
Enabling academic studies rather than teaching to professional skill development	Neoliberal university model requires a different approach: EURECA-PRO assures employability after study programmes
Research for the sake of science and not motivated by society or economic factors	Neoliberal university model requires a different approach: EURECA-PRO adopts lighthouses in research Active search for partnerships with potential users of research outcomes Acquisition of research funding through calls for expressions of interest at European level
Integrate students in research work	Student projects Programme Based Learning Thesis work
Enabling personality and human development of students and fellows through scientific practice	Training of staff in educational capabilities Training staff for Programme Based Learning
Continuous interaction and communication within the university	EURECA-PRO Website Lecture series International week Review week International conferences
Protecting freedom of education and freedom of research	As a matter of principle
Education System	
Academic freedom	As a matter of principle
Unity of education and research	As a matter of principle Training courses on lab work, scientific paper writing and conference presentation for staff and students
Bildung instead of professional skills training	Neoliberal university model requires a different approach Focus in study programmes on employability
Employability not the goal	Focus in study programmes is on employability Co-operative agreements with associated partners Industrial internships
Integration of education and research	Students participate in research activities Problem Based Learning Student projects Internships Thesis work
Unity of science and presence of all academic disciplines	Various levels of adoption of this principle among partner universities from focus on selected academic disciplines (especially STEM) to overall comprehensive and universal coverage of the full academic spectrum
Independence from any state intervention, even within context of state funding	Various levels of such dependency exist among the partner universities, resulting in everything from full flexibility to tight regulatory barriers
Self-governed institution	Development of EURECA-PRO governance structure with Board of Rectors, Steering Committee, Education Council, Manuals of Procedure, Student Co-Creation Group and various Task Forces

This new integration of the Humboldtian Model with the neoliberal model has implications for EURECA-PRO. We seek to implement many elements of the Humboldtian model in the current and future activities of EURECA-PRO, with appropriate measures already envisaged and contained in our Technical Description, Work Packages and Deliverables. Table 2 repeats Table 1 with additional comments pertaining to EURECA-PRO implementation measures.

5. Summary

Within one year, between 1809 and 1810, Wilhelm von Humboldt and his team developed an innovative concept capable of totally reforming the Prussian education system. Humboldt had a chance to apply this concept, which became known as the Humboldtian Model of Higher Education, to a great extent in the newly formed University of Berlin in 1810. With the support of leading young scientists as new professors, Humboldt intended to implement his concept of tertiary education based on universities practicing academic freedom, integrating education with research

and unifying science. Such an education model implies the presence of all academic disciplines within a university and demands university-wide interaction and communication between the respective representatives of various disciplines. It also calls for students to become integrated “researching learners” and “learning researchers” in close co-operation with their teachers.

With the emergence of the neoliberal university model, some elements of the Humboldtian model have been called into question. Others, however, remain valid today and can be implemented in the current and future activities of EU-RECA-PRO with appropriate measures already envisaged in our Technical Description, Work Packages, and Deliverables.

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Conflict of interest. J. C. Bongaerts declares that he has no competing interests.

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