CyLaw-Report XXXXII

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Viola Schmid in 2023/01: „Weltrecht^2 Backbone Documents“

→ here

“PAPER“: “MULTIDISCIPLINARY CONSTITUTIONAL LAW SCHOLARSHIP FROM GERMANY AND THE EU”

SUBMITTED TO WORLD CONGRESS OF CONSTITUTIONAL LAW IN DEC. 2022

PRELIMINARY ANNOTATIONS TO WELTRECHT^2 & THE CLYAW-REPORT SERIES (STATUS IN JANUARY 2023):

“Weltrecht^2” addresses the process of digitalization and the economization of state and private (information) value chains since the inception of cyberspace as the 5th dimension of being. The designation “Weltrecht^2” has been chosen for a World Congress of Constitutional Law (WCCL) with the conference title "Constitutional Transformations" held in South Africa, Johannesburg from December 5 to 9, 2022. One workshop topic on the agenda concerns "Constitutional law scholarship and constitutional transformation: actors and influences.” This **“Backbone Document”** presents the 10,000-word ‘paper’ titled “Weltrecht^2 - Multidisciplinary constitutional law scholarship from Germany and the EU”. This Cylaw Report XXXXII forms part of the “Weltrecht^2-Series” and builds **directly**

- onto Cylaw Report XXXXIII: Viola Schmid in 2023/02 → here “WCCL - LAUNCH “: “MULTIDISCIPLINARY CONSTITUTIONAL LAW SCHOLARSHIP FROM GERMANY AND THE EU” ON DEC. 7TH 2022– [soon to be published]
- onto Cylaw Report XXXXI: Viola Schmid in 2023/01: „Weltrecht^2 Entourage Documents“, (Version 2) → here: A STANDARD FOR A UNIVERSAL (TECHNOLOGY) LAW LECTURE (2018)
- onto Cylaw Report XXXVI: Der kleinste gemeinsame Nenner - 13 Basics zum Cyberlaw? (The smallest common denominator – 13 basics for Cyberlaw?) ["Cyberlaw All 2 - 2014"] (2016) in **G**erman **L**anguage [GL], as well as
- the concomitant publication Forschungsmatrix für eine globale Cyberlaw-Agenda – „Cyberlaw All 4 – 2016“, (research matrix for a global cyberlaw agenda -„Cyberlaw All 4 – 2016) in: Schweighofer et al. (Ed.), Networks – Proceedings of the 19. International Legal Informatics Symposion (IRIS 2016), p. 441 – 448 also in German language [GL].

FORMAT: The following “backbone document” reproduces ASAP (as soon as possible) the submission to the conference in South Africa, held December 5 to 7, 2022. It is therefore acknowledged and accepted that the formatting may not be ABAP (as best as possible – own terminology). Rather, we have set store by keeping the documents in their original format (with only slight editing) – and as originally submitted (confidentially) -, in order to make them available to the interested audience in

an immediate and multinational manner to facilitate and promote a [broad] discourse on Weltrecht^2. “Pedigree information”: the submission format in November 2022 was Google Drive, following the choice of the conference chair.

VERSATILE FOOTNOTE DOCUMENT (own terminology (ot)): Weltrecht^2 announced this versatile footnote strategy: “Multinational additions of footnotes remain reserved for the Weltrecht^2 Agenda and future publications. A publication in Zenodo (https://about.zenodo.org/) will follow. The term ‘Zenodo’ is derived from Zenodotus, the first librarian of the Ancient Library of Alexandria and father of the first recorded use of metadata, a landmark in library history.’” German titles and terminologies cited here have been kept in German to allow for better traceability in e.g. library catalogues and/or legal databases. Translations of these materials into languages other than German are intended solely as a convenience to the non-German reading public. Any discrepancies or differences that may arise in translations of the official German versions of these materials are not binding and have no legal effect for compliance or enforcement purposes. If readers are interested in further information in English, please feel free to contact the author (schmid@cylaw.tu-darmstadt.de).

WCCL WORKSHOP 27:

CONSTITUTIONAL LAW SCHOLARSHIP AND CONSTITUTIONAL TRANSFORMATION

"WELTRECHT^2":
MULTIDISCIPLINARY CONSTITUTIONAL LAW SCHOLARSHIP
FROM GERMANY AND THE EU IN 10.000 WORDS IN NOVEMBER 2022

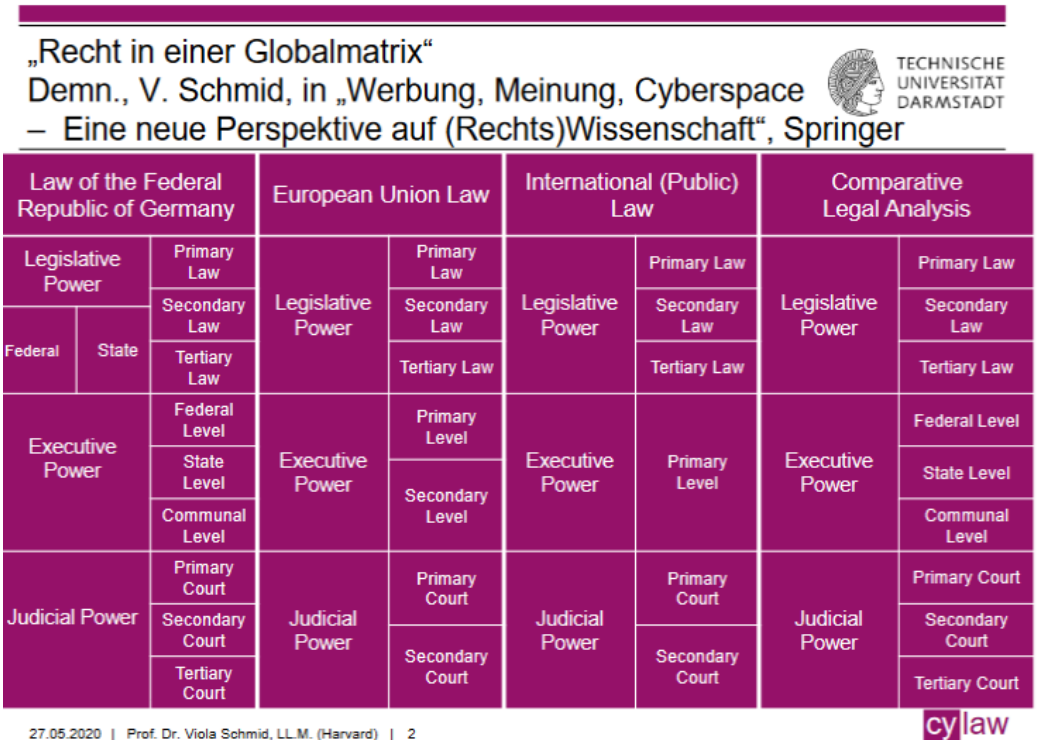
ABSTRACT

There are two (r)evolutions that trigger "Weltrecht^2" [GLOBAL LAW^2]. On the one hand, the transformation of the REALWORLD into a technology-based HYBRIDWORLD (REALWORLD+CYBERSPACE) preparing us for an AI-enriched CYBERWORLD. On the other hand, the opportunities that such a data-driven world holds for coping, for example, with our common global challenge - climate change adaptation & mitigation (**CCAM**). Thus, technology law should ultimately serve to mitigate the technology-induced perils - climate change - that threaten the survival of humankind. This end should not justify the loss of minimum standards for freedom, security and justice (Art. 67 Treaty on the Functioning of the European Union).

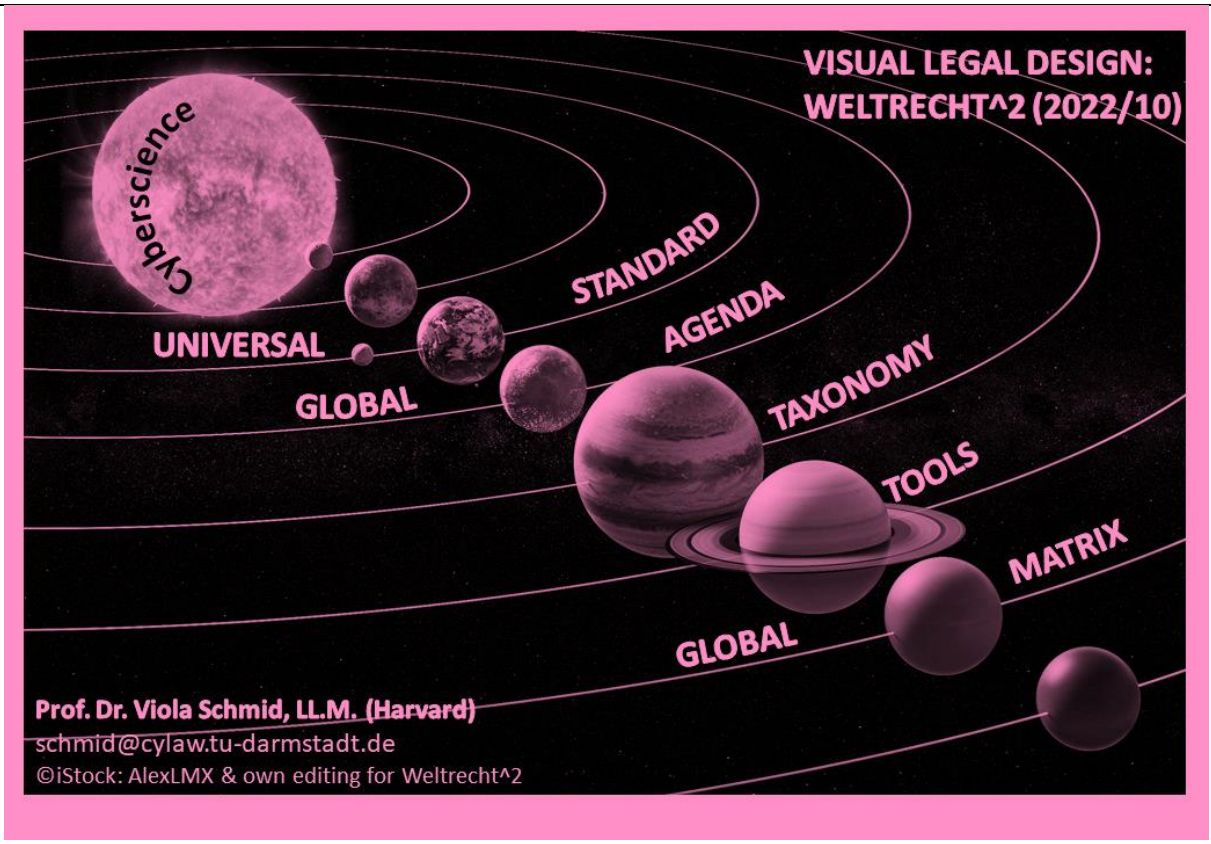
Within Weltrecht^2 a new scientific value chain has been formed, which will herein be called CYBERSCIENCE [Cyber(rechts)wissenschaft] - and may elsewhere be named "complexity science". In 2017, **CYBERSCIENCE** was defined as the "process of creating knowledge that is essential in the transition period from the 'real' to the 'digital' and the 'digital' to the 'real'. Goal is to preclude any non-transparent and (un)intended 'value losses'"[1]. In 2022, **the above CYBERSCIENCE definition is adjusted to "a new multidisciplinary science originating in law scholarship, utilizing "the world of law" for a "legally coded as well as by lawfulness-driven world"** (own terminologies→"ot"). The need to transform in the face of climate and technological change is being increasingly recognized. The German Federal Constitutional Court (GFCC) states: "[…] especially considering that such innovations will have to be introduced on a **massive scale in nearly all areas of economic production and in practically every aspect of how people live.** Given the extent of the **requisite socio-technological transformation […]**[2]. How technological (r)evolution may result in the (r)evolution of the legal system is addressed by a 52-member Independent High Level Expert Group for Artificial Intelligence (AI HLEG) set up by the European Commission:

> „9. Adopt a risk-based governance approach to AI and ensure an appropriate regulatory framework
> Ensuring **Trustworthy AI** requires an **appropriate governance and regulatory framework**. We advocate […]to safeguard AI that is lawful, ethical and robust, and fully aligned with fundamental rights**. A comprehensive mapping of relevant EU laws** should be undertaken so as to assess the extent **to which these laws are still fit for purpose in an AI-driven world. In addition, new legal measures and governance mechanisms may need to be put in place to ensure adequate protection from adverse impacts as well as enabling proper enforcement and oversight, without stifling beneficial innovation."**[3]

Likewise, the World Congress of Constitutional Law in 2022 addresses this challenge with its title „Constitutional Transformations“. Concomitantly, “Weltrecht^2” explores how and to what extent legal systems can become drivers for a technology-based world in order to cope with the challenges of such a technology based world. This global perspective is an essential requirement because a technology-based world can only be grasped, shaped and written in such a way. Traditional distinctions of scope and applicability of state law/national law are acknowledged as much as they are rejected for their limiting quality for a science and teaching design in CYBERSCIENCE. This global perspective is visualized and operationalized for research and teaching in the below presented GLOBALMATRIX[4]:



For this version of Weltrecht^2 (2022) the GLOBALMATRIX will be complemented with the metaphor of a singular „academic galaxy“[5]. The visualization of such galaxy metaphor serves to illustrate the various orbits in “Weltrecht^2”.



A value chain of research and teaching(s) characterizes the exploration of such a new „science galaxy“ – especially of CYBERSCIENCE. CYBERSCIENCE is the sun around which the planets orbit. In addition to the GLOBALMATRIX, there are – to stay with the galaxy metaphor – four more planets. Within the limits of this article, the planets can only be named and first explorational insights be shared. It initially is a standard of teaching(s), which also includes space law (UNIVERSAL STANDARD). This STANDARD planet was outlined in 2017/2018 and is reproduced in Cylaw-Report XXXXI (2022) → A STANDARD FOR A UNIVERSAL (TECHNOLOGY) LAW LECTURE (2018).[6] The Teaching Standard serves as „proof of concept“ of a herein so-called “GLOBAL AGENDA OF CYBERLAW”, which was developed between 2014 and 2016 and has already been published.[7] Since 2022, a Weltrecht^2 - TAXONOMY[8] has been providing clarity on the value chain, consisting of research and teaching(s) for CYBERSCIENCE. A document[9] delineating TOOLS („Essentials for Legal Work”) is currently under preparation and shall allow for international, cross and multidisciplinary collaboration by establishing good scientific practice.

Summing up: “Weltrecht^2” is an iterative and dynamic teaching, learning and research concept based on legal realism. “Inventory or stock research” [“Vorratsforschung”] for the legal design[10] of an “AI-driven world”[11] is conducted. With the intention that humans, (human) law systems, societies and economies

- are not condemned to be driven by a technological (r)evolution and
- become competent as well as effective and efficient actors in the climate fight.

Part 1: "Weltrecht^2" as Operational Project Management for Research on a Legal Design for an AI-driven World

A. (Constitutional) Law for Innovation in State & Society

Law with governance quality for a HYBRIDWORLD consisting of REALWORLD+CYBERSPACE can be called "innovation law": Although this is basically all about technology law – because in 2022 data is being organized by means of technology – I will in the following use the term "data-based" and "technology-based" synonymously. This is justified because the quality and quantity of data contours a technology- and data-based world.

I. Preparation for Society in a Data-Based World – „Innovation Law "

Weltrecht^2 deals with present and future challenges of **an electronized, digitized, automized and autonomized (EDAA) world,**

- which are unchartered regulatory territory;
- which can no longer be optimally addressed with the legal system of the nation-state;
- which departure point is a current HYBRIDWORLD that acknowledges the co-existence as well as side-by-side existence of CYBERSPACE (also the Metaverse) and REALWORLD;
- which has to regularly take three temporal states of law into consideration in its time management, due to the acceleration and disruptive potential of (AI and Quantum) technology:
  - past law (for example, with grandfathering of old machines)
  - present law
  - and future law.

The German Federal Constitutional Court (GFCC) has therefore established the following for the CCAM: "Given the extent of the requisite socio-technological transformation, **long-term restructuring plans** and **phase-out trajectories** are considered necessary […][12]

II. Preparation for a Data-Based State – „CYBERSTATE/CYBERUNION"

Once the „requisite socio-technological transformation" reaches the constitutional state [Rechtsstaat] or the "European Legal Union" (union de droit), they and their concomitant principles, institutions and laws have to be rendered machine processable (as in: „automated state"[13]). The fact that the state is also measured by key performance indicators –and will become data-driven - has now been made comprehensible by an amendment to the German Basic Law (Art. 91d). Will the principle underlying Industry 5.0 then also become a challenge for the versioning of the states – 1.0, 2.0, 3.0, 4.0…?[14] Today, these challenges are met by pragmatically applying the terminology CYBERSTATE/CYBERUNION. Further research is necessary.

III. "Innovation Law" in Germany in Selected Orders/Judgments of the GFCC

The scope/volume of this contribution (10.000 words) – which is therefore part of the title – prohibits a complete report. Three DEMONSTRATORS (see below) and one PILOT (see below) have been selected here as being of immediate relevance to the question to which extent law can be part of a legal (r)evolution (innovation law).

- It has already been mentioned that in 2021 and in the context of (CCAM) the GFCC had legally called for a "socio-technical transformation" in almost all areas of life and economy.
- Innovative economic, fiscal and monetary policies (EFMP) have been subject of constant adjucation on state and union financing since the year 2010 and following. The innovations of European Central Bank (ECB) were so controversial that in 2021 they culminated in infringement proceedings (Art. 258 TFEU) by the European Union against Germany. The GFCC last ruled that the Union's assessment of the European Central Bank's innovative financial instruments as well as their justification by the European Court of Justice (ECJ) were "simply not comprehensible" (para 116).
- The third DEMONSTRATOR concerns a decades-long legal uncertainty and unlawfulness of the German-European Telecommunication Traffic Data Retention and Usage Law (TTDL) Within this core area of CYBERLAW a clash of culture exists between German and European legislative power on the one hand, and German and European judiciary power on the other hand. The governance functionality of the law can be considered appallingly low in view of the quantity of states affected by unlawfulness (26-28 member states and the annulment of an EU directive) and the overwhelming importance of the here so-called "information-technological security law". [See also Cylaw Report XXXXIII - Viola Schmid: „Weltrecht^2 - SERIES" → here: „WELTRECHT^2 – LAUNCH" ON DEC. 7TH 2022 AT WORLD CONGRESS OF CONSTITUTIONAL LAW – soon to be published.]
- The PILOT – the proverbial „elephant in the room" - is the as yet in (constitutional) jurisprudence as well as scholarship undecided question to which extent autonomous AI machines can be granted legal capacity in conformity with the constitution.[15]

  This challenge – how to protect human dignity & identity - remains unanswered. Just as much as it will have to be mastered constitutionally in a data-based world, where key performance indicators are applied.

The establishment of constitutional law as (r)evolution law, the divergent stances of EU and FRG with regard to the assessment of the lawfulness of innovation law, the loss of governance functionality over a period of more than a decade and the overlooking of the „elephant in the room" are the origins of the Weltrecht^2 project.

B. Terminology: “Welt des Rechts”x“Rechtswelt”=„Weltrecht^2“

The German terminology “Weltrecht^2” [Global Law^2] is a new jurisprudential venue to a “HYBRID-WORLD” consisting of REALWORLD and CYBERSPACE. It consists of a “world of law” on the one hand and a “legally coded as well as by lawfulness-driven world” [“Rechtswelt”] on the other hand.

- The “world of law” may consist of all legal systems of the 193 members of the United Nations[16]. The “world of law” is figuratively perceived through disciplinary, jurisprudential glasses.
- A “legally coded as well as by lawfulness-driven world” [“Rechtswelt”] might be the result of an effort to cover all challenges of a technology-based world - that is ready and available anytime and anywhere. The “world of law” (ot) is to be distinguished from a “legally coded as well as by lawfulness-driven world” [“Rechtswelt”]“ as follows: The „Rechtswelt“ is being felt and experienced by all living beings in a technology-based world. This new potential for law shall be addressed here with the motto: “law is code”, „legality by default“ and „legality by design“.

In other words, “Weltrecht^2” is about utilizing the “world of law” for the enforcement of law in a “technology-based world”. For the „Rechtswelt” – with a law specifically designed for technology, applied, implemented and enforced through and with technology – I propose the terminology “legally coded as well as by lawfulness-driven world” [“Rechtswelt”].

Quantitatively we are thus dealing with a multitude of legal systems. This “world of law”, ensuing from a quantitative analysis of individual legal systems shall be complemented with the qualitative perspective of the „Rechtswelt“. The potentiation 2 of „Weltrecht^2“ therefore originates from the combination of „world of law“ and “Rechtswelt”. A syllogism would read:

- Technology becomes ubiquitous and omnipresent and
- technology ought to be lawful → Lawfulness via technology has the chance to become ubiquitous and omnipresent as well.

It is therefore about the delegation of man’s subjugation under the law to the “(AI)Machine”(ot).

C. DEMONSTRATOR for „Weltrecht^2“: Legally Compliant AIMACHINES on German Roads

The (German) Road Traffic Act (deutsches Straßenverkehrsrecht (§1e(2)) for motor vehicles with autonomous driving function may serve as DEMONSTRATOR for such a „Rechtswelt“.

„Motor vehicles with an autonomous driving function must have available technical equipment which is able to, […]

2. independently comply with all traffic regulations that are directed at the vehicle driving control unit and possesses an accident prevention system, which

a) is designed for damage prevention and reduction,

b) takes into account the significance of the legal assets, with the protection of human life taking highest priority, in the event of an inevitable, alternative damage to various legal assets / rights, and

c) does not provide for any further weighting based on personal characteristics in the case of an inevitable, alternative hazard/endangerment to human life,

3. to independently render the motor vehicle into a state of minimal risk if the continuation of the journey were only possible by violating the traffic law.“

The conformity with constitutional law, including the protection of principle of proportionality, is thus embedded into the technology of the motor vehicle with autonomous driving function (here the so-called AIMACHINE) and only such a motor vehicle offers the chance for accident reduction compared to traditional motor vehicles.

D. Comparative (Technology) Law as Operational Strategy in Researching Best Governance Practices

I. Comparative Law is More than a Desideratum in Innovation Law

A priori hypothesis is: in a technology-based world, comparative law holds new opportunities for the principle of democracy and freedom of expression, and a new risk potential for incompetent states acting in violation of (international) law. **Comparison of technology law allows for multinational benchmarking of governance quality and dysfunctionalities – since technology is our common basis of life**, the effectiveness of governance **strategies can be immediately compared.** Unlike the REALWORLD’s TRADITIONAL LAW of the past, comparative technology law is no longer a desideratum but an **essential prerequisite for quality**.

In comparative technology law applying the “rule of law” instantly reflects different or identical decisions regarding identical or comparable technologies. Due to the identical (technological) subject matter of dispute, applying a global perspective elicits **immediate insights as well as enables positive or negative transfer potentia**l.

II. Use and Business Case Orientation as Prerequisite for Comparative Analysis of Technology Law

A topical methodology was chosen because technology is departure and ending point of the project. Weltrecht^2 acts primarily use and business case oriented. The topical method was also applied to contour the design of new legal principles such as fundamental rights. The biggest challenge with comparative law of the past – **the different cultural concepts** [Kulturalität] as obstacle for immediate transferability of results – **does not exist in this form with comparative analyses of technology law.** A distinction must be made between the different legal penetration of the use and business cases:

1. **„PILOT"**

„'PILOTS' are scenario-oriented, specifically developed use-case applications of (law) and technology which are also accessible to economic and technological science analysis." It may be characteristic for the PILOT in one legal system to have DEMONSTRATOR quality in another legal system.

2. **„DEMONSTRATOR"**

„'DEMONSTRATORS' allow for the testing of feasibility, sustainability and quality as well as vulnerability - in this they are different to the PILOT in their degree of functional, legal and market maturity." For example, subject of a previous German language publication was how the world changes into a drone world as a DEMONSTRATOR for an AI-driven world.[17] A further DEMONSTRATOR are surveillance programs such as „Pegasus" or data banks "(HessenData/ "Palantir")[18], or such technology as encryption algorithms which are (technically) identifiable and comparable. The reaction of different legal systems allows to gain experience and knowledge capital both with regard to effectiveness, costs, chances and risks of such technologies (no particular ranking in this sequence), and with regard to governance options.

III. Weltrecht^2 as "(Constitutional) (R)Evolution"

Weltrecht^2 can generate knowledge and experience capital, in order to enable the constitutional state and the legal union to keep up with the transformation and to inoculate against or prepare for disruption. PILOTS and DEMONSTRATORS are about outlining real-life/time laboratories[19] and testing of experimental legislation. The challenges to overcome are the volatility of law as well as the testing of a constitutionalism for the fourth and the fifth industrial revolution. Goal is the enhancement of quality and speed of law making, application and adjudication.

E. Weltrecht^2" Requires Multinational Supplementation

This document therefore wants to invite (cyber)citizens around the world to explore, study and teach globally existing (technology) law. It has invitational character. The invitation is issued by a German constitutional law professor with the veniae legendi to teach public, European and energy law. She works at the faculty of law and economics of a state technical university in Germany. This competence portfolio is significant in light of the selection of ideas and legal information presented here. It offers a German-European perspective on world law which awaits supplementation and critique. The next step target is the creation of a multimedia "textbook" with the working title "CYBERSCIENCE - a new perspective on jurisprudence". All those who "offer up" criticism such as feedback set in motion change. This agility is reflected in the attribute: Work in Progress.

I. Work in Progress (WiP) and „Entourage Document"

This written submission makes use of the workshop chair's offer of not providing a "fully polished paper".

1. WiP, Footnotes, Languages, Neologisms (in Capital Letters) and „Sharing Academics"

Weltrecht^2 addresses a global research community which both uses digitalization strategies and technologies, while at the same time making them the subject of their research. In consequence, this "paper" will also include presentation slides as well as a TAXONOMY poster to distinguish it from conventional jurisprudential publications. It is multimedia work in progress in several respects: on the one hand with regard to writing in the English language [EL], and on the other hand with regard to the project progress of establishing a research network for Weltrecht^2. Sometimes translations do not suffice – that is why German terminologies are added in brackets [ ]. Neologisms are visualized in CAPITAL letters. In the current state of the document some links were used. The 10.000-word-limit allowed only few references. The multinational addition with footnotes remains reserved for the agenda and future publications. A publication in Zenodo (https://about.zenodo.org/) is projected [available in January 2023]. "Zenodo is derived from Zenodotus, the first librarian of the Ancient Library of Alexandria and father of the first recorded use of metadata, a landmark in library history." Prior research to drones also used this tool. The idea is "sharing academia" inspired by "sharing economics".

2. "Weltrecht^2 'Entourage Documents'"

Weltrecht^2 and the preliminary works by the author over the past 20 years, partly only available in the German language [GL] attempt to offer a legal (science)-based operational management/practice which explores the opportunity to shape a technical as well as economic transformation in a legally acceptable ["rechts(v)erträglich"] manner. The preliminary studies will be shared as Legal Open Source (L.O.S.) – three of the 'Entourage Documents' shall be/ have been published as part of the Cylaw-Reports series (ISSN: 1867-1969):

a) Cylaw-Report XXXXI→ A STANDARD FOR A UNIVERSAL (TECHNOLOGY) LAW LECTURE (2018)

This teaching standard dating from 2017/18 has been published in November 2022 for the present submission to the WCCL („Entourage Document" STANDARD).

b) Cylaw-Report XXXVI → „(Global) Agenda for CYBERLAW" – 13 Basics – CYBERLAW All 2 & CYBERLAW All 4 (2016)

Available in German are two publications which concern a "research network" and a GLOBAL AGENDA for CYBERLAW ('Entourage Document' GLOBAL AGENDA).

3. Multinational Supplementation - Globalmatrix for Weltrecht^2

The abstract presents a GLOBALMATRIX oriented along the separation of powers, which admittedly only provides a rough orientation. Naturally, globality is an ambition while bi-, tri-, and multinationality are a reality. Nor can it be denied that neither the distinction between three pillars (national law, European union law and international law) is always clear, nor are the hierarchies of legal order and legal

norms in innovation law indisputable. One DEMONSTRATOR may suffice here: It is highly questionable why recommendations of the Committee of Ministers of the European Council are arguments in Union AILAW in the absence of legally binding documents of the European Union itself. This dogmatic clarification of the embedding of legal argumentation in different legal systems is, however, a further step of Weltrecht^2: The path-breaking decision concerns "AI in information technology security law (PNR - Passenger Name Records). In its first landmark decision on artificial intelligence in the context of self-learning systems (Machine Learning) the ECJ (Judgment (Grand Chamber) v. 21.06.2022 - C-817/19, ECLI:EU:C:2022:491 uses in para. 194f, this complicated mode of reference to recommendations of the Committee of Ministers of the European Council.

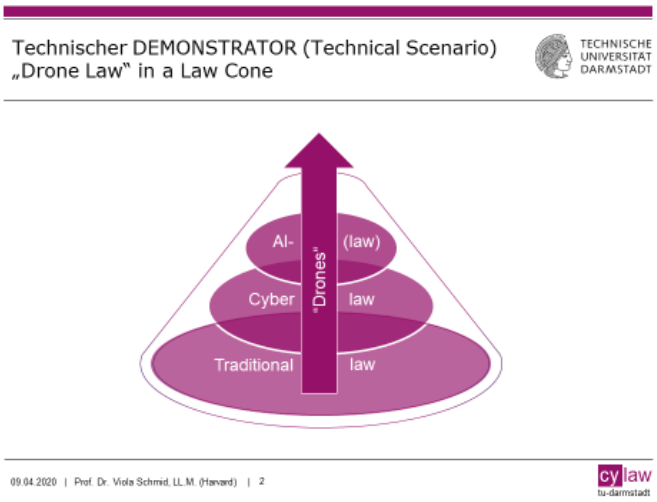
II. Digitalization, EDAA and Innovation Law

As mentioned above (Part 1. A.I.) within the transformations of the REALWORLD into a HYBRID-WORLD, consisting of REALWORLD + CYBERSPACE and commonly titled „digitalization“, a differentiation has to be made. The acronym EDAA - Electronization, Digitalization, Automation and Autonomization – prepares for a law cone with different stages of sophistication of the technology-driven world. PILOT: A culmination of this AI-driven world is the legal conformity of motor vehicles with autonomous driving functions, which is reserved for AILAW (see Part 1. C.). From a technology perspective, roughly around the turn of the millennium a distinction had to be made between the here so-called innovation law (with the cone levels CYBERLAW and AILAW) on the one hand, and TRADITIONAL LAW on the other.

III. Law cone with three levels: AILAW, CYBERLAW & TRADITIONAL LAW

1. Visual Legal Design: Law Cone

Characteristic for the legal cone is the **technical anchoring in and change** of a global world. [20] It was originally developed through the (then-2018) PILOT „drone law“.



Now (2022) this DEMONSTRATOR (drone-law) for the law cone highlights:

- TRADITIONAL LAW – aviation and air traffic management law – is needed to address the security and environmental needs of a drone world. German air traffic management, for example, is currently ultimately practiced by people - air traffic controllers and pilots. Moreover, it builds on mechanization.
- CYBERLAW is needed to stay abreast of the transformation and digitalization of such aviation law - focused on hardware and people.
- Furthermore, AILAW is needed to meet the specific challenges resulting from the interaction of automated to autonomous Unmanned Aerial Systems (UAS).

2. Functionalities of the law cone

Such differentiation into three law categories has the following core functionalities: On the one hand, it allows for an initial „mapping“ of existing and to-be-created law and on the other hand, it can prevent unreflected value losses when comparing three law categories. As the author put it in 2018: “It is to be determined which elements of TRADITIONAL LAW merit preservation even in view of a HYBRIDWORLD with cyberspace. It awaits explorative research how to handle first hybrid experiences with CYBERSPACE and the REALWORLD in an informed way, in order to be able to analyse the advantages/disadvantages of the REALWORLD in relation to the advantages/disadvantages of CYBERSPACE and the HYBRIDWORLD, and to make the best possible choices regarding governance? Furthermore, precaution **has to be taken to** avoid that innovation leads to value decline and a regression of freedom and security in light of the special technical construction of CYBERSPACE – and the resulting (attack) risk.” [21]

In 2022, the functionality of the law cone is expanded: Not only does it register the peril of value losses, but also allows for legal design input. Such as the contours of new constitutional rights: The Right to Ephemerality and new constitutional principles: the Principle of Robustness (Part 3.C&B.)

Ideally, work with the cone model enables a legal design that promises best-possible governance.

3. Separation of Legal Categories – a Must [Alternativlos]

It will admittedly be difficult at times for individual PILOTS/DEMONSTRATORS to clearly distinguish the legal categories. This fuzziness and overlap of dogmatics and methodology is preferable to an undifferentiated claim of identicalness, which a priori presupposes that a technology-based world does not lead to fundamental value shifts. The counter hypothesis of Weltrecht^2 is thus jurisprudentially proposed in opposition to the requirements of the HLEG in the abstract: „fully aligned with fundamental rights“. In particular, the unlawfulness of traffic data retention & usage law (TTDL) within the European Union and German CYBERLAW, sustained over the past decade, holds experiential capital **against**

the claim of being able to regulate an AIWORLD lawfully. The attempt at distinction is therefore preferable to the claim of identicalness of the three legal categories – without alternative and therefor a must!

4. AILAW

In terms of future (legal) science, this “paper” prepares for an "AI-driven world". In addition, constitutional law will also be looked at adopting this future perspective. From a German-European perspective it has to be kept in mind that

- the basic competencies for the regulation of AI may be missing, just
- as does a legal definition of AI.

a) Union-Related Competency for the AILAW (Art. 5 TEU and Art. 114 TFEU)?

One of the obvious points of criticism from a German constitutional law perspective is that the legal basis of an AI regulation – internal market (Art. 114 TFEU) - may already not be sufficient due to the different nature of the traditional REALWORLD and a world of co-existence with AI machines. Art. 5(2) TEU is cited: “Under the principle of conferral, the Union shall act only within the limits of the competences conferred upon it by the Member States in the Treaties to attain the objectives set out therein. Competences not conferred upon the Union in the Treaties remain with the Member States.”

aa) Criticism of Union Competency in the Context of the Telecommunication Traffic Data Retention & Usage Law (TTDL)

Also in the area of CYBERLAW with the “TTDL DIRECTIVE 2006/24/EC” (Art. 288(3) TFEU) that was later declared null and void for other reasons (in 2014), such criticism regarding competencies has been raised by a member state[22] (in Germany Art. 23(1) Basic Law). Although this competency complaint was not successful before the ECJ – from the German perspective on constitutional law scholarship we have to address the following question: How can sovereign rights for AI governance be transferred onto the European Union when at the time of transfer AI did not exist yet (Art. 23(1) second sentence Basic Law)?

bb) Positive Obligation of Executive & Legislative Branches in the Face of “Manifest or Structurally Significant Usurpation of Sovereign Powers”

In a different context – of innovative financing instruments (EFMP) - the GFCC has stated the following responsibility: “Moreover, the German Bundestag and the Federal Government may not simply let a manifest or structurally significant usurpation of sovereign powers by European Union organs take place […].”[23]

cc) Logical Impossibility of Democratic Legitimation of an AI-driven world?

The constitutional principle of equality of choice (Art. 38(1) first sentence Basic Law) may gain a hitherto overlooked significance in the context of the data-based state (see Part. 1. A. II), the data-based Legal-Union. As the world becomes data-based, there is no longer justification that politically negotiated voting

weights, handed down with traditions, should continue to meet the constitutional requirement of equality in voting. Senator Bennet has addressed this criticism for the U.S. Senate after the 2022 midterm elections: “It is unacceptable that [a group of senators representing] 22% of the [people that live in the USA] can block all governance in the Senate with a veto”. This logical criticism applies as much to the voting rights in the European Council (one country one vote) and the European Parliament (Art. 14 (2) sentence 3 TEU - “degressive proportionality”). This, in summary, is about the ahistoricity and the disruption potential of AILAW for the distribution of voting rights in the FRG and the European Union.

b) European Union Proposed Definition in a Draft AI Act

This is the first attempt of a legal definition of AI from a global and multidisciplinary perspective. In April 2021, the European Commission submitted a draft regulation (Art. 288(2) TFEU), which contains a legal definition (Article 3(1) AIA)[24]. This draft is different from preliminary works of the Commission and the recommendations of an expert group, which use also the terminology “artificial rationality”. In summa: Only if the principle of conferral allows to claim the internal market provision (Art. 114 TFEU) as an AI-regulatory-competence, this definition could be deemed as de lege ferenda and lawful.

c) Acronym: „AILAW“

The term „AI“ will remain controversial as other disciplines chose different connotations – keywords are: General AI, Super AI, Weak AI and Strong AI.[25] Furthermore, it is obvious that many software products are covered by this definition. And obviously, motor vehicles with autonomous driving function are AI.
In addition, in an AILAW world the actors may even be conceded legal capacity. The workshop invitation, too, brings up the topic of new actors. Such innovations allow for AILAW to currently be granted its own „legal“ category, despite all the fuzziness regarding the legal definition of AI which extends to such terminology proposals as „artificial rationality“. Because the Union’s AILAW is currently so poorly contoured as its legality scrutinized, we have chosen to apply the unusual acronym „AILAW“. The challenge is clear: Technologies that would have been “incomprehensible” and “unforeseen” for our ancestors need to be legally grasped [(v)erfasst].

5. CYBERLAW

The English compound noun is also used in German research to point to the origins of CYBERSPACE and CYBERLAW (the USA). The word component „Cyber“ harks back to kybernetiké téchne, while the compound noun ‘CYBERLAW’ encompasses: the law of distribution of chances and risks, rights and duties in CYBERSPACE as well as the HYBRIDWORLD, consisting of REALWORD and CYBERSPACE. CYBERLAW focuses on digitalization and automation (EDAA) – the existence of overlaps with AILAW, which deals with automation and autonomization (EDAA), is accepted.
Historically, some components of Weltrecht^2 have in principle been created on CYBERLAW - notably the GLOBAL AGENDA. However, it was already envisaged then that automation and human-machine

interaction (Basic VII) would be prioritized. In this respect, an update of the GLOBAL AGENDA is needed for autonomization in the AIWORLD.

6. TRADITIONAL LAW

The end of TRADITIONAL LAW **only** is roughly dated for the turn of the millennium. „TRADITIONAL LAW" is understood here as traditional dogmatics and methodology of the legal science within the German constitutional state [Rechtsstaat] and the European legal union [Rechtsunion]. The distinguishing feature of TRADITIONAL LAW is the (experiential) knowledge accumulated in millennia. Significant (though) is the absence of the potentially global, omnipresent and omnitemporal technical interconnectedness and competition as well as vulnerability to attack due to the complementation of the REALWORLD with CYBERSPACE. How much the REALWORLD differs from the HYBRIDWORLD (REALWORLD complemented with CYBERSPACE) can be seen at the scale of ephemerality [Maßstab des Rechts auf Flüchtigkeit]. This implicit feature of the REALWORLD – the ephemerality of, for example, the spoken word and the undocumented exercise of freedoms – may have to be reconquered by a new fundamental "right to ephemerality" for the HYBRIDWORLD and in CYBERLAW. DEMONSTRATOR: For the HYBRIDWORLD – specifically in light of the video, audio and archive functionalities of aerial drones (unmanned aerial systems) – we will have to address a here so-called "ubiquitous replay challenge".

G. Weltrecht^2" Requires New Dogmatics and Methodology

I. New Dogmatics & Methodology

A world of law [Weltrecht], complemented by „AILAW" is about innovation, which calls for an avant-garde strategy. In equestrian terms – as a metaphor – one has to ride ahead. This is connected to the fact that there is, at times, no jurisprudential mainstream – and that neither a so-called "prevailing opinion' exists, nor experiential knowledge. In addition, the quality of the discourse is fundamentally different from the discourse quality of TRADITIONAL LAW, both in terms of quality and quantity. There is, in many cases, a lack of technical, economic and legal experiential knowledge, hence not only the spelling of AILAW here points to the innovation challenge, but new multidisciplinary dogmatics and methodology will have to be explored, too. We propose the following agenda term:

II. „CYBERLEXONOMICS"

„CYBERLEXONOMICS" is a term composed of CYBER, LEX and ECONOMICS. CYBER stands for the inclusion of cyberspace in our lives, which over the past millennia has extended „only" to the REALWORLD. The latin compound LEX also represents the rootedness of the (TRADITIONAL) LAW in legal history. The anglo-saxon ECONOMICS points to the interaction of legal and economic sciences in the future. Thus, the tendency of this research perspective is made clear: It is future **science**-oriented re-

search starting from a legal perspective. We intend to not only present the research results in cyberspace, but to also integrate technology and economic sciences (plus the technical/jurisprudential/economic practice) into the development process.“[26]

III. CYBERLEXONOMICS within the Data Protection Law

CYBERLEXONOMICS is the rejection of solo-disciplinary "fiat iustitia et pereat mundus" [27]and demands a consideration of cost-benefit-ratios in the legal design of technology. Evidence that CYBERLEXONOMICS can already be used as a basis in current Union secondary legislation has already been submitted for publication:

"A historical example in CYBERLAW is § 9 second sentence BDSG [Federal Data Protection Act of 1970] with its balancing formula for IT security and data privacy compliance. This historical clustering of law and economy (ot: LEXONOMICS) is also the supporting principle of European CYBERLAW, the General Data Protection Regulation [Datenschutzgrundverordnung], which is significant from a global perspective. These cost-benefit ratios, which require an economic approach as a prerequisite for legal subsumption, can be found at many key points in European secondary law. In principle, two such governance and regulation strategies (referred to here as LEXONOMICS) can already be identified in its grammatical interpretation, for example, in the case of the General Data Protection Regulation:

1. „Disproportionate Effort“ Leads to Discharge – „’Whether’ level “

In a number of provisions, the "disproportionate effort" for compliance leads to a discharge of the debtor (EU General Data Protection Regulation(GDPR): Art. 14(5)lit.b – obligation to inform if the personal data was not collected from the affected person: “would involve a disproportionate effort“; Art. 19 first sentence – obligation to notify in connection with the rectification or erasure of personal data or the restriction of processing: “involves disproportionate effort”; “ Art. 34(3)lit. c - notification of the affected person of a personal data breach): “would involve disproportionate effort”.

2. Consideration of State-of-the-Art and Implementation Costs – „’How’ Level “

In a number of provisions, legal obligations exist only to the extent that implementation costs are taken into account/are proportionate. (EU GDPR: Art. 17(2) - Right to erasure ("right to be forgotten": “taking account of available technology and the cost of implementation, shall take
reasonable step” , Art. 25(1) - Data protection by design and by default: “Taking into account the state of the art, the cost of implementation”, Art. 32(1) - Security of processing: “Taking into account the state of the art, the costs of implementation”)“[28].

3. CYBERLEXONOMICS – Proof of Concept

To summarize: CYBERLEXONOMICS can currently be extracted primarily within data protection law und thus in CYBERLAW. To what extent these dogmatics/methodology will be formative for a data-driven world in general and for AILAW in particular will have to be investigated in Weltrecht^2.

Part 2: Planets, Orbits and Academic Value Chains for Weltrecht^2

As the ‚galaxy design', presented in the abstract, proclaims: Weltrecht^2 currently (2022) knows a sun (CYBERSCIENCE) and five planets. One of the planets is the already introduced GLOBALMATRIX. The other ‚planets' have been researched over the past decade and the publication maturity of the results differs considerably. Therefore, time management (with development periods) is imperative in order to transparently indicate the ability to update as well as the need to do so. The TOOLS planet is currently (2022) under investigation (D.). The TAXONOMY which allows to signify the planets content wise and which provides an overview over Weltrecht^2, is published under this name for the first time in 2022.

A. TAXONOMY (TAX) – Three Functionalities

The TAXONOMY (TAX) provides an overview in terms of content and process structure of Weltrecht^2. The concept „TAXONOMY“ is reflected here in reference to the principles (Basic No. I-XII) and the Securitization PILOT (Basic No. XIII) within the GLOBAL AGENDA(GA), the STANDARD (ST) and the „TOOLS“ of the (legal) scientific work first in CYBERLAW and then in CYBERSCIENCE by means of a diagram.

The following three functionalities can be distinguished: (I) The Visual Legal Design encompasses the draft nature of GLOBAL AGENDA and STANDARD. The Basics as well as the modules are presented. (II) This Visualization of the TAXONOMY facilitates the attachment of “library signatures/codes” to all the data-based world's legal challenges („Rechtswelt“) which occur all over the world („world of law“). It is the creation of “TAXONOMY signatures”. (III) The referencing to GA and/or ST enables, in particular, a process-oriented verification of the relevant insights about such planets like GA and ST.

I. Visual Legal Design: Weltrecht^2-Taxonomy"

"Weltrecht^2*-Taxonomy": "Taxing" "Global Agenda" (GA), "Lecture STANDARD" (ST) & TOOLS

Global Agenda for Cyberlaw– 13 Basics (GA)

I. Cyberspace as a new Dimension of Being!
II. Cyberlaw makes Cyberspace a Cyberworld
III. Status Quo: Transition Period
IV. Malfunction Management (MaMa)
V. Global Networking and Competition – the GNC Formula
VI. Sustainability
VII. "Legal Information Technology Circular Thought Process"
VIII. Automation and Human-Machine-Interaction (AILAW)
IX. (IT) Security (Law) as an Equivalent to the Rule-of-Law Principle (ROBUSTNESS)
X. New Terminologies and Basics Laws - "Right to Ephemerality"
XI. New Conceptions of Truth?
XII. Building (Global) Discourse Bridges and „STANDARD"
XIII. Temple Architecture for the Challenges regarding an „Agenda of Securitization" – E-Justice

„Proof of Concept" of „13 Basics" in the „STANDARD"

„Right to be forgotten"
Judgment of the Court of Justice of the EU, 13 May 2014, „Google Spain and Google", C-131/12
Art. 17 EU-GDPR

„ephemerality" ≠ „to be forgotten"

"SECURITIZATION"

Universal STANDARD for a (Technology) Law Lecture (ST)
15 Modules à 90 Min.

Module	Title	Content
1	"Survival Guide" & Table of Contents	LAW and not Philosophy, Political Science, Sociology, Economics etc. **TOOLS: „Essentials for Legal Work"** α „Blank Strategy" β „GAST-Index" γ Writing
2	"Basics 1"	Robots and Cyborgs and the Right of Humans
3	"Basics 2"	Reaching out for a Global and Universal Perspective
4	"Basics 3"	Language as a Strategy for a Global Lecture Standardization Effort
5	"Basics 4"	"LEXONOMICS" – Financial Resources, Efficiency and Efficacy Principles
6	"Basics 5"	National Constitutional Reserves for (Inter)National Law in Globalized (and Digitized) Societies
7	"Basics 6"	Electricity as the Lifeblood of/ Fuel for Cyberspace
8 9	"GoCore! 1"	Telecommunication Traffic Data Retention and Usage Law (TTDL) als "Double Module"
10	"GoCore! 2"	Ramifications of Virtual Currencies on Governance
11	"GoCore! 3"	"Who Owns the Sky?" – Drone Law
12	"GoCore! 4"	"Interactive Toys" – Spyware in Nurseries around the World?
13	"GoCore! 5"	TechJustice and "Technology Transforms Legal Markets"
14	"Terroir"	Burgeoning historical, political, societal etc. specific issues from idiosyncratic national perspectives
15	"Outcome & ROI"	Concerted Pioneering in Cyber- and AILAW with the Ambition of best possible Cyber Governance (without stifling beneficial innovation)

*Submitted by Viola Schmid for „World Congress of Constitutional Law", Workshop 27: Constitutional law scholarship and constitutional transformation, Johannesburg, South Africa, 5 – 9 December 2022.

II. Signifying and Referencing for a “Global Data and Information Tsunami”?

1. Taxonomy of Legal Materials

In view of the multitude of disciplines as well as different legal systems, we can expect large data volumes of vast heterogeneity in terms of quality and quantity. The initial focus of a legal taxonomy are „legal products“: it is typical for CYBERSCIENCE to use sources of different authenticity and format properties. The research matrix of GA is, in principle, open for over hundreds of legal systems. Therefore, it is fundamental to first establish for what signature law exists – **or where not**. First, it is given a signature according to the (GA) or the (ST). Then it is referenced against GAST.

DEMONSTRATOR: Drone law has the signatures/codes GA VIII and ST 11→ and therefore the reference GAST VIII&11.

2. Preparation for „Predictive Coding“ by Signifying and Referencing

The legal products originating from many legal systems demand a structure to approach a possible orientation certainty for research and analysis - grounded in the hypothesis that the quantity and the quality of the materials – especially due to the digital transformation of millennia-old products (so-called Archival Diplomatics) – is both indeterminable as well as unreadable. New ‘library signature strategies” (figuratively such as shelf marks and tags) are required with a minimum aspiration or ambition to at least not to miss the essential. In the absence of conventional library signifying strategies and all lexical selection strategies – such as a “Meyers Konversationslexikon” (an encyclopaedia of Germany’s past dating from 1907) – we need complementary (time)allocation as well as information strategies and technologies. The application of AI for a system of signifying and referencing – especially when forgoing the alleged completeness of human text analysis – is thus being prepared (predictive coding).

III. Referencing According to GA and/or ST – Weltrecht^2 in Iteration

As a strategy for differentiation between „wheat and chaff“ (GoCore!) in light of a tsunami of challenges we propose to base the **validation according to GA or ST – i.e. GAST – on iteration.** Either there exist a GA and/or ST signature and a GAST reference – and thus confirms Weltrecht^2 in this version. Or, where no signature and/or referencing is possible, the GLOBAL ANGENDA and/or the STANDARD may consequently need to be supplemented or

modified. This is the concept of agile iteration which manifests itself in a scientific value chain of confirmation or error, based on the foundation of GLOBAL AGENDA on the one hand and STANDARD on the other hand.

B. GLOBAL AGENDA

I. GoCore!, CYBERLAW Agenda & GLOBALMATRIX

1. GLOBALMATRIX & GoCore!

The above presented GLOBALMATRIX initially serves to make accessible the „world of law“. Such exploration is premediated on a legal mapping and a prioritization of PILOTS and DEMONSTRATORS in a technology-transformed world. Which legal challenges – the answers to which should then find entry into the teaching(s) of innovation law (the STANDARD) - should be addressed with priority? The here selected standard shall be abbreviated with the acronym GoCore!. GoCore! stands for **Go**vernance, **Co**mpliance and **Re**gulation. The innovative „academic figurative mark“ is being explained on the Homepage of a research portal: The GoCore! maxim calls for the elaboration of core challenges within the technical, legal and economic area of digital transformation (the so-called minimum standard and “No Gos” from a jurisprudential perspective) on the one hand and the addressing of „close-to the-heart needs” [Herzensbedürfnissen] of the (human) upholders of fundamental rights [Grundrechtsträger] (Core corresponds to core/heart) on the other hand. Both imperatives are trendsetting for an „AI driven world”. If a data and technology-based world were to master CCMA then this should not unthinkingly happen at the expense of humanity and the human identity (Core → Heart).

2. GoCore! & GLOBAL AGENDA

Cyberspace exists almost everywhere in the world, and all legal and social systems face the same challenges. Therefore, the question arises: Which legal system offers the best way to master the transformative challenges? An initial proposition to help prioritize the challenges is a 2014 ‚CYBERLAW Agenda’[29], which originated from a GoCore![30]-based analysis.

II. Global Agenda for CYBERLAW– 13 Basics (GA)

The TAXONOMY diagram calls **into mind the 13 Basics.** The scope of this article prohibits a more detailed presentation, which has, however, already been published in German language (two publications).

III. Securitization-PILOT: E-Justice (Legal Technology) – Basic XIII

Furthermore Basic XIII of the 13 Basics of the GA offers a practical implementation indicator [Realisierungsindikator] – the here so-called „PILOT/ DEMONSTRATOR“ of the SECURITIZATION[31] of (E-)Justice. This concerns the core of law enforcement, i.e. the digitalization of justice. It is precisely about the determination of truth – for example, when using video, audio or photo documentation as evidence, which in turn have themselves been obtained by violating the domestic and property rights ([Beweisverwertungsverbote]/ inadmissibility of evidence).[32] The opportunities which Legal Tech holds for cross-border, multinational law enforcement can also be assessed by looking at the application of cross-border video conference strategies. To this end, we point to a draft regulation of the European Commission from December 2021 which envisages the „digitalisation of judicial cooperation“ (Art. 7, 8 of COM(2021) 759 final).[33] In summary: the significance of e-Justice for cross-border law enforcement is taken into account, just as the needs for IT security are being addressed by the term “Securitization” (and since 2022 the “Principle of Robustness”-Part.3B). A Cyberstate/ a Cyberunion has to guarantee the availability, integrity and privacy of information (§ 1(2) second sentence of the German Act on the Federal Office for Information Security (BSI Act – BSIG) [Gesetz über das Bundesamt für Sicherheit in der Informationstechnik]) of the third (judicial) power. Due to the paramount importance of e-Justice, it is being represented as a temple to provide metaphorical emphasis in the Visual Legal Design of the TAXONOMY.

C. Standard for Universal Technology Law Lecture

The GLOBAL AGENDA is the sum of all the challenges in need of addressing in order to identify all the knowledge and experience capital in different legal systems. Such a functionality of “benchmarking” presumes that there are evaluators. The STANDARD concept allows students of the STANDARD to agree on the legal as well as dogmatic foundations of a technology-based world (see in particular GA Basics I – V) – or to disagree.

I. GLOBAL AGENDA & STANDARD

In order to establish a common platform for discourse on a global and multidisciplinary level, shared cyber(law)education is required. The so-called STANDARD provides an educational canon which tests and further develops the principles and PILOTS/DEMONSTRATORS of the GLOBAL AGENDA (see TAXONOMY: „Proof of Concept“). When we share a basis of commonly understood terminologies and we can avoid misunderstandings, productive discourse becomes easier (see above GA XII. Discourse Bridges). A more than 100 pages strong manuscript will become available as a shared Legal Open Source document in English [EL] starting November 2022, as part of the CYLAW Report Series.

II. Universal Standard for a (Technology) Law Lecture – Content

1. 15 Modules with Basics and GoCore! Characteristics

The teaching STANDARD consists of 15 modules à 90 minutes with nine PILOTS/DEMONSTRATORS as presented here (pink and marked in bold). The modules are currently being conceptionalized and their content has not yet been fully worked out. The acquisition of interested parties is currently in progress. Due to the singular importance of Module 14 – also for Weltrecht^2 – some substantiations are made here (C.III).

2. PILOTS/ DEMONSTRATORS: Inclusion Aviation and Space Law

Different to traditional jurisprudence the STANDARD (ST) also encompasses aviation and space law. On planet Earth not only is the law of the technology-based cyberspace relevant, but also the law of (outer) space (space law), where some 30,000 satellites exert an immediate influence on the HYBRIDWORLD down on earth. In addition, the exploitation of the finite resource airspace as a room for the mass individual traffic of aerial drones is being taught as a DEMONSTRATOR (ST GoCore! 3 “Who Owns the Sky”-Drone Law - Module 11).

3. Goal: Multi- und Pluridisciplinary & Multi- and Plurinational Value Chains

The goal is to achieve a multidisciplinary discourse which also allows for scholarly competition. Different to traditional comparative law, it is not solely about the „world of law“ [as a collection of legal scripture] but it includes [tangible] PILOTS and DEMONSTRATORS. One example are aerial drones, including drone detection, which hold technologically, economically and jurisprudentially disruptive innovation potential and which should be explored in a pluridisciplinary

manner. Thus, the ST-Basics and the GoCore! modules give focus to the multidisciplinary discourse. The experience, however, tells: multidisciplinary efforts often end in a solodisciplinary pretense/dominance using purportedly multidisciplinary arguments. The vision of pluridisciplinarity – in contrast - holds out the prospect of an unbiased, appreciative cooperation and coexistence of different disciplines and different cultures (plurinationality). This ambition is furthered by Module 14:

III. Module 14: Terroir

Weltrecht^2 originates from an author rooted in the German-European legal system. Two DEMONSTRATORS are offered to illustrate how important it is to understand the implications of this “Terroir” – the geographical (and cultural) context:

1. Principle of “Terroir“: The Right to Freedom of Expression and its relevance to Germany’s History

That freedom of expression is an important building block for a democratic state based on the rule-of-law is evident. It may, however, not be so well known that the ECtHR has recognized that freedom of expression and artistic freedom can be limited in German law - unlike in other contracting states. The history of Germany in the 20th century gives reason for a special responsibility regarding Freedom of Expression (Art.10 ECHR).[34]

2. Principle of „Terroir“: Training of Lawyers & Judges

A second DEMONSTRATOR: German law students are made aware of this Germany-specific historical context in a mandatory course during their legal education. § 5a(2) second sentence German Judiciary Act: (…) [„the teaching of the mandatory subject courses is taking place in confrontation with the National Socialist injustice and the injustice of dictatorship of the Socialist Unity Party of Germany.”]

D. TOOLS: „Essentials for Legal Work”

GAST shall be complemented by a (new) science etiquette for good research and evidence practices (GAST-Tools), publication of which in German language is expected for 2023.[35] New challenges arise from the establishment of a pedigree principle for the use of legal databases, which from a global perspective will have to take into consideration the digital divide with respect to research in different legal systems. In addition, there are fundamental challenges with

regard to use of leaked materials. And then there is the issue of using verbatim quotations, which are best suited for global CYBERSCIENCE research with the claim of minimum trilingual „translation“.

Part 3: “Weltrecht^2” - Ambition and potential “Return on Investment (ROI)”

A. Prevention of Illegality (in CYBERLAW & AILAW)

Weltrecht^2 also contains with the STANDARD a teaching component offering study choices without presuming prior jurisprudential knowledge. Teaching innovation-law at the onset of a technology-based society and state serves the prevention of illegality, by helping the „builders/designers” of CYBERSPACE with technology-scientific and technology-operational backgrounds to gain familiarity with the legal sciences. It is about “privacy, (IT-)security and legality by design”.

B. New Rule of Law: the "Principle of Robustness"?

The advantage of the „Rechtswelt“ is the discovery of the cross-global challenges of a technology-based world. **It is the multitude and diversity of technical PILOTS and DEMONSTRATORS from real life examples that allow the identification of such constituting principles and the design of new fundamental rights.**

I. GA Basics IX: (IT)-Security (Law) as an Equivalent to the Rule-of-Law Principle (ROBUSTNESS)

Already in 2016 did the GLOBAL AGENDA establish for the CYBERLAW realm the need for research into a new legal principle of (IT) Security (Basics IX). In 2022 this agenda has been supplemented for CYBERSCIENCE, which includes AILAW:

II. Viola Schmid: "Artificial Intelligence Constitutionalism" and the "Principle of Robustness"

This is the title of the submitted abstract of June 2022 for Workshop 30 „The principle of the rule of law in the age of digital constitutionalism“ of the WCCL.

> The German rule-of-law establishes core elements such as the principles of clarity and certainty of norms, the primacy of the legislature in essential decisions, its democratic legitimacy, the prohibition of retroactivity and the separation of powers. Above all, an independent judiciary exists, to which the path may not be cut off (guarantee of legal recourse). The

European rule of law (Art. 67 TFEU) establishes a single space - "*an area* of freedom, security and justice". However, the REALWORLD (author’s terminology), which is not entirely technology-based and which created and lived by these rules of law, has been supplemented for about 20 years by a technology-based cyberspace. Constitutionalism must therefore clarify whether Art. 67 TFEU is also sufficient for a HYBRIDWORLD consisting of an autonomy-capable REALWORLD and a technology-based cyberspace. Is "*an area*" interpretable in such a way that it applies to both?
Moreover, the “(cyber) *area*” entails different phases of digitalization, automation and autonomization (from digital documents to autonomously flying drones). Therefore, an undifferentiated "digital constitutionalism" perspective is technologically and legally insufficient: There is a need for an "AI Constitutionalism" if the European Union wants to pursue and legislate AI policies (see "Artificial Intelligence Act" of 21st April 2021). Furthermore, Art. 67 TFEU requires "respect for fundamental rights and the different legal systems and traditions of the Member States". If it applies, it requires an "AI-Law analysis" of these different legal systems and traditions. This is precisely the notion of an "AI constitutionalism" that asks: Does cyberspace also need a *special rule of technology* for freedom and security? A *rule of technology* that complements the rule of law. And if, which core elements (see above on the rule of law) configure this *rule of technology*? I suggest the adherence to the principle of robustness.
For an "AI-driven world", the European Commission has set up a 52-member *High-Level Expert Group* to develop this "principle of robustness" (in their *Assessment List*)[36]. This "principle of robustness" comprises core elements such as security, safety, accuracy, reliability, fallback plans and reproducibility. One could object that the expert group has not dealt with constitutionalism at all. Instead, it has produced a "framework" for an "AI-driven world" that establishes a triad of lawfulness, ethic conformity and robustness (LER formula). For the first time, it equates the "principle of robustness" as a "rule of/for technology" with traditional legal and ethical conformity – the pillars of traditional constitutionalism. Thus, in a transdisciplinary interpretation “robustness” is inevitably linked to “Artificial Intelligence Constitutionalism” from the perspective of a German-European constitutional law scholar. Whether this "principle of robustness" will be the result of an evolutionary legislation or could be the result of a revolutionary jurisprudence, especially in Germany, will be examined in the conference contribution. It is about Legal Design for the Cyberworld.

C. New Fundamental Right: “Right to erasure” ("Right to be Forgotten”) & “Right to Ephemerality”

Not only the Legal Design of fundamental legal principles will be on the agenda, but also the development of new rights. The German-European law on the „Right to be forgotten“ (Art. 17 GDPR) may perhaps have to be supplemented with a “ Right to Ephemerality” in the realm of the “Rechtswelt”. Thus, the challenging question to be addressed is whether there will have to be legal reserve where humans are generally protected from „ubiquitous and omnipresent“ video- and audio surveillance. The a priori claim is: Associated with a world that is becoming increasingly technology based are the risks/chances of geolocation, perpetuation of content (documenting the execution of freedoms) as well as meta data. It will also have to be

examined to what extent citizens will still be able to communicate with ephemeral media (such as paper) and to act freely without digital connectedness. Remember the DEMONSTRATOR (Part 1 F.II.6.): For the HYBRIDWORLD – specifically in light of the video, audio and archive functionalities of aerial drones (unmanned aerial systems) – a here so-called “ubiquitous replay challenge” (ot) will need to be addressed.

Part 4: Why “the Classic Model of Constitutionalism” might not Suffice for the Best Possible Governance (for an AI-driven World)?

In response to the submission of Weltrecht^2-abstract of June 2022 the author received the following recommendation:

"The applicant is kindly required to advance the proposed paper under a clearer framework concerning constitutional law scholarship and technology in the paper, especially the challenges brought up by the new technologies to the classic model of constitutionalism."

The author’s analysis was: Consequently, the task is twofold

- by presenting the CYBERSCIENCE galaxy on the one hand and
- to prove/disprove the existence of “the classic model of constitutionalism” for an AI-driven world from a global perspective.

The presentation of the CYBERSCIENCE galaxy already requires the publication of a 100-page ’Entourage-Document’ with the STANDARD. The author therefore decided to put the second task up for joint discussion during the workshop on December 7, 2022 and proposes the following talking points/theses [See also Cylaw Report XXXXIII - Viola Schmid: „Weltrecht^2 - SERIES“ → here: „WELTRECHT^2 – LAUNCH” ON DEC. 7TH 2022 AT WORLD CONGRESS OF CONSTITUTIONAL LAW – soon to be published.]

A. Activist Courts, New Fundamental Rights and Obligations & “Democratic Deficits”?

B. CYBERLAWlessness – Discrepancy of Legislative and Judiciary Power in the context of TTDL?

C. Law Alone is NOT Enough! – The LER-Formula (lawful, ethical and robust) of the HLEG

D. Abolition of the Separation of State, Economy and Society

The support of the services of public powers (legislative, executive, and judiciary) with (AI)technology regularly involves

- the private digitalization of the public state and
- the public state digitalization of the private.

Digitalization technologies are marketed and maintained by and the responsibility of private entities. Associated with it is the use of public data reservoirs – the data of those subjugated under the law. In this respect, national sovereign duties are being privatized in a way that far exceeds the usual forms of participation like public private partnership, administrative assistants and those in public trusts [Beliehenen]. By digitizing public state (data)value chains to which citizens are forced to submit through „information technology coercion“ [Informationstechnologiezwang] (ot), they become digitized by the sovereign.

E. Personalized Law? Suum cuique?

Last but not least: “Algorithmic Regulation and Personalized Law” (Busch/De Franceschi) and “Personalized Law: Different Rules for Different People” (Ben-shahar/Porat) offer new functionalities of law - I am very much looking forward to being told of „the classic model of constitutionalism” which can meet these challenges. The challenge remains: (R)Evolution in (Constitutional) Law? Welcoming your thoughts on Weltrecht^2!

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