On INNOVATIVE GOVERNANCE of HIGHER EDUCATION INSTITUTIONS: QUALITY LITERACY, PERFORMANCE INDICATORS and a Focus on LEARNING and TEACHING

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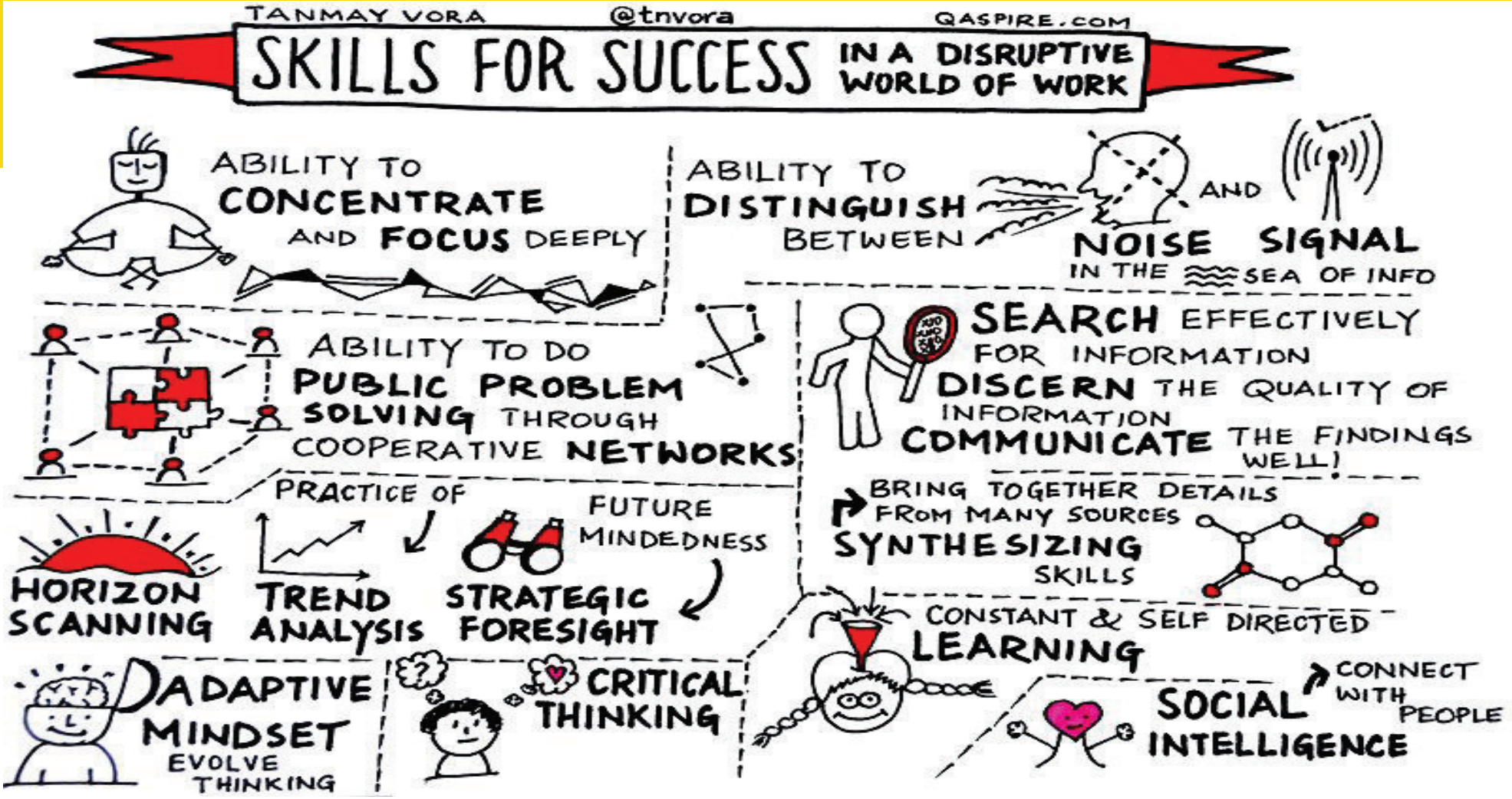
- Challenges & Threats for Higher Education
- On Innovative Governance – in Higher Education
  - Governance: Definition & Criteria
  - Quality Literacy relying on PDCA/SSARPM & Performance Indicators
  - Used (Innovative) Performance Indicator Models
- On Innovative Governance in HE Learning &Teaching
  - Challenges & Motivations
  - (Innovative) Methods for Gathering PI Information & Data (in HE)
  - Innovative Performance Indicators for Governance and L&T
- Summary

A “general model” of INNOVATIVE GOVERNANCE & ORGANISATIONAL LEARNING …

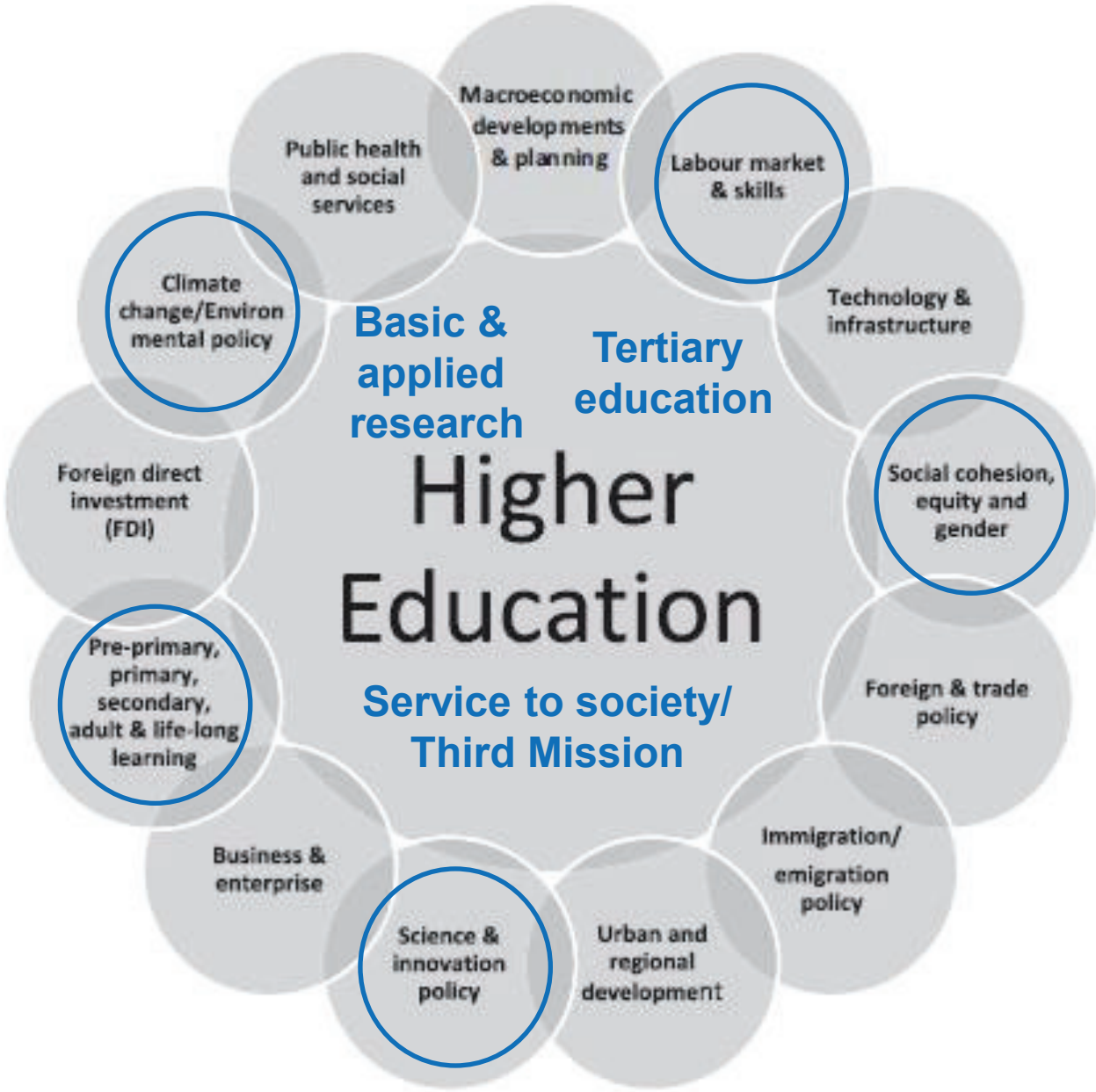


Who isn‘t in need of orientation knowledge and action competencies …?

… Particularly …

Higher Education at the Centre of a Complex Policy Eco-System

Source: Adapted from Hazelkorn, 2020.



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Challenges to the University as Functioning Organisation

- **Multiple-hybrid** character (e.g. many tasks, organisational levels, responsibilities and stakeholder interests, partially in permanent contradiction and competition for all kinds of resources → **Paradoxical, contested subsystems & situations**) – **SUPERCOMPLEXITY** (Barnett, 2000; 2015; van Niekerk, 2016)
- **Massification** of HE
- Growing importance of **Transformative Digitalisation** and **remote** learning and teaching
- **Incompetent HEI leaders & managers** (3 types of incompetence: ineffective behavior; dysfunctional b.; unauthentic b.; see Patel & Hamlin 2017)
- **Deficient academic self-governance & quality culture competencies**
- **Third Mission / service to society, societal responsibility / transdisciplinarity**
- **Heightened cyber security risks** that arise from greater dependence on digital technologies
- …

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Threats to the University as a Critical Institution

- **Non- or anti-democratic** context (e.g. dictatorial states; dominant religions; surveillance, especially of the digitalised university)
- **Anti-scientific & anti-enlightenment** populism (e.g. distribution of fake news; conspiracy ideologies)
- **Deficient** provision/promotion of **personality formation** including education in **ethics**, **philosophy of science**, **sustainable development & basics of sciences**
- **Other erosion of freedom of education** (learning and teaching) **& research** (e.g. economical/ entrepreneurial **instrumentalisation** of HEIs; reduction to vocational training & transfer of skills; students as teaching-recipients/customers instead of self-directed learners)
- …

Governance: Definition & Criteria

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Definition of – Multi-level – Governance

- **Design, implementation & use** of **policies, structures & practices** (processes) for facilitating **goal-oriented decision-making** **on various organisational levels**

Governance

- Requires **coordination & compromise of different or conflicting goals** of multiple interest groups & stakeholders
- Strongly depends on **transparent policies** including intertwined & interdependent
  - **Rules & regulations**
  - **Distribution of responsibilities**
  - **Organisational structures & processes**
  - Relevant & adequate **leadership competencies**

Governance: Definition & Criteria

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Traditional HE governance

- **Bureaucratic control of input targets** by the state (e.g. funding, personnel selection and training)
- **Shared decision-making** of elected bodies (rectorate, senate, faculty council, faculty dean, …) with the exception of purely academic matters of research and teaching
- **Strong autonomy** of faculties/departments & its individual members (academic staff) with respect to purely academic matters of research and teaching

(Varieties & variants of) **NPM**

- **Increased privatisation & economic integration** between interest groups and stakeholders at the expense of state involvement
- **Managerial accountability** weakens shared decision-making
- (Increased) **Control of output targets** (**performance assessment** in comparison with the expectations of stakeholders) affects academic autonomy

QUALITY LITERACY relying on PDCA/SSARPM & Performance Indicators

Possible Perspective on Innovative Governance – Shared epistemic governance

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QUALITY LITERACY

Stakeholders' Competencies in

Strategy; Management; Practice; Culture

Modes of Governance: Joint Decision-Making

ORGANISATIONAL DEVELOPMENT via QUALITY ENHANCEMENT

based on various types of evaluations (primarily relying on PDCA cycles)
QUALITY MANAGEMENT SYSTEM

Quality Management Measures

(Scientific methodology & Evaluations: Peer review; Reputation measures; Programme & institutional accreditations; Rankings; Benchmarking; Balanced Scorecard; Target agreements etc.)

PERFORMANCE INDICATORS

Assessment of achievements (assurance, enhancement)

Qualitative and quantitative performance data and information

Table 3a. Conceptual framework of **QUALITY LITERACY** in higher education, part 1: internal actors, **example** of teachers

Main goals of higher education stakeholders	**Quality literacy (= Shared epistemic governance)**			
	Quality strategy competencies	**Quality management competencies**	**Quality practice competencies**	**Quality culture competencies**
Teachers aim to enable & support: future competencies including personality development; academic qualification & skills; fitness for employability; fitness for society; fitness for continuing education (comprehensive holistic approach)	Observe permanent requirements for compliance of L&T with - **performance indicator-related** L&T standards - motivating students for **THCSDL** - enhancement orientation - fitness for/of purpose - value for money	Support design & implementation of quality enhancement to meet the requirements for compliance of L&T with - **performance indicator-related** L&T standards - motivating students for **THCSDL** - enhancement orientation - fitness for/of purpose - value for money Show responsibility/ accountability for L&T quality	Apply didactics (e.g. L&T theories; pedagogies) & L&T technologies that foster **THCSDL** & collaborative learning Develop & improve study programmes & courses based on quantitative & qualitative **performance indicators** Participate in **performance indicator-based evaluations of L&T**	**Share espoused values, expectations & commitment to quality (enhancement)** in L&T according to strategic, management & practical competencies Advocate values of **civil rights** & **academic freedom** of L&T which are ultimately based on the **Universal Declaration of Human Rights** (UNGA, 2008) and moral and legal codes in accordance with it

Logic of PI use

PIs are indispensable for governance of quality enhancement & Quality literacy does not have to be completely reduced to PIs or fully mapped by PIs

(Leiber & Seyfried, 2021)

QUALITY LITERACY …

Quality Culture Competencies – a possible selection

(CUC [Committee of University Chairs], 2020, **The Higher Education Code of Governance**, 6)

Critical: commitment to economic growth

Integrity:	transparency, accountability, honesty, freedom of speech and academic freedom
Sustainability:	financial and environmental
Inclusivity:	equality, diversity, accessibility, participation and fair outcomes for all
Excellence:	high-quality research, scholarship and teaching
Innovation and growth:	social, economic and cultural
Community:	public service, citizenship, collegiality, collaboration

Concretisation of Quality Literacy: SSARPM as Paradigm of Performance Assessment & Enhancement & Organisational Development (Leiber, 2019a, 324ff.).

	SEVEN-STEP ACTION RESEARCH PROCESS MODEL (SSARPM)
[Prepare]	**[Having in stock models and tools for systemic QM and EBOCD]**
Take stock	**Carrying out stocktaking analysis with respect to existing QM and organisational structures and processes**
Diagnose	**Diagnosing what needs to be changed and developing a strategy including a future vision – PI-based** Challenging the current state and re-examining of the organisation's core issues Recognizing the need or opportunity of change and OD Diagnosing what needs to be changed Gathering and interpreting information Developing a vision and strategy
Activate	**Establishing leadership and activating people – PI-based** Clarifying the role of leadership in OD/QM Clarifying power, politics and stakeholder management Communicating and sharing a change vision and strategy Fostering genuine commitment and enrollment rather than compliance Overcoming change resistance and obstacles such as surprise, shock and denial of decision for change Building change relationships, create guiding coalitions and establish leadership support
Plan (P)	**Planning interventions to achieve desired development – PI-based** Developing a change plan Shaping implementation strategies Clarifying and have in store types of intervention Carrying out appreciative inquiry
Do (D) **Check (C)**	**Implementing change plans and reviewing progress – PI-based** **Carrying out change interventions** Consolidating (short-term) gains and keeping change on track Monitoring and evaluating change progress – PI-based
Act (A)	**Taking action and making change continual and sustainable** Drawing evidence-based action consequences (to close the quality feedback loop (PDCA cycle) by adequate follow-up measures) – PI-based Institutionalising change Anchoring new approaches in organisational culture/quality literacy
	Initiating learning processes Suspending assumptions and entering in genuine thinking together Fostering continual individual and collective learning (**Learning Organisation**)

We humans are CAUSAL & PLANNING & SOCIAL beings …

Logic of PI use

Used (Innovative) Performance Indicator Models

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- Programme Accreditation
- **Institutional (System) Accreditation**
- International Research Rankings (e.g. ARWU, THE, CWTS Leiden, …) (cf. Leiber, 2017)
- (National) L&T Rankings/Ratings (e.g. CHE, TEF, …)
- **U Multirank** (international ratings based on users' choice)
- Bibliometrics/scientometrics (statistical analysis of publications and their citations)
- Balanced Scorecard (BSC) (customer; finances; internal processes; learning & growth)
- **SEESs** = Student Experience and Engagement Surveys (e.g. NSSE (US), SES (AUS), SAES (UK), ISSE (IRL), Studierenden(zufriedenheits)befragungen (D), …) (cf. Leiber, 2020)
- **Drop-out surveys**
- **National and international tracer studies**
- (other, occasional) Evaluations (of institutes, centres, subject fields, research projects, study programs, QM systems, …)

Used (Innovative) Performance Indicator Models

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- **Performance/Quality Agreements** between the state & individual universities (e.g. Netherlands)
- Performance-oriented allocation of funds („leistungsorientierte Mittelvergabe“ = LOM) (e.g. incentives to increase performance & the efficient use of resources through competitive distribution based on quantitative performance indicators)
- **Reporting systems** on various administrative levels (e.g. federal level, e.g. “Bildung in Deutschland”; federal states’ levels (“Landesberichtssysteme”); university level)
- **Performance Data Analytics (‘Big Data’)** …

Most of these can be informed & supplemented by

- **SQELT comprehensive Performance Indicator Set for L&T** (https://www.evalag.de/sqelt)

A **fully developed SSARPM is not applicable to all of these**

- Lack of data
- Highly aggregated date
- …

Challenges & Motivations

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Challenges to the University as Education Institution

- **Creative & innovative processes** in core performance areas (research; L&T)
- Curriculum development & L&T are **cooperation tasks** that require **shared responsibility**
- **Complicated L&T processes** (L&T environment; teaching processes; learning processes; learning outcomes & their assessment) in practice relying on **competitive, contested L&T theories** (behaviouristic; cognitivist; social; constructivist; humanistic)
- **Shift from teaching to learning / transformative self-directed learning (SDL)** (Bologna Process; EU Modernisation Agenda)
- **Shift from input process to L&T outcomes** (Bologna Process; EU Modernisation Agenda)
- **Student participation** (e.g. SEES)
- **Achieved learning outcomes & learning gain not easy to observe & assess** (e.g. impact analysis on level of individual learners; Learning Analytics) (**about 60% of requested European HEIs struggle with, or cannot manage implementation of LO; 40% complain about insufficient resources**; Gaebel et al., 2018)

Challenges & Motivations

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Challenges to the University as Education Institution

- LLL / continuous education
- **Professionalisation & dissemination of pedagogies** (e.g. faculties/departments of education; teaching centres; institutional research)
- **Digital Transformation of L&T**
  - **Virtual & blended L&T formats**
  - **Virtual & blended learning assessment formats**
  - **Personalised learning experience, AI, mixed reality technologies, …**
- . . .

(Innovative) Methods for Gathering PI Information & Data (in Higher Education)

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- **Peer review** – qualitative
- **Systematic Qualitative Content Analysis (QCA)** (e.g. cf. Mayring, 2020) (and "hermeneutics") applied to
  - Written **documents** – qualitative
  - Transcribed **interviews** (structured, semi-structured, narrative) with different stakeholder groups (e.g. students, teachers, researchers, leadership, QM, politics, employers, parents, …) – qualitative
  - Transcribed **focus group discussions** (semi-structured, narrative) with different stakeholder groups – qualitative
  - Written documented **open survey questions** (paper-and-pencil, online) with different stakeholder groups – qualitative
- **Statistical methods** applied to
  - **Closed questions** (paper-and-pencil, online) – quantitative
- **Bibliometrics** – quantitative

(Innovative) Methods for Gathering PI Information & Data (in Higher Education)

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- **Performance Data Analytics (Digital tracing and tracking)** – quantitative
  - **Reports** generated **from Learning Management Systems** (LMSs) & **Learning Analytics tools** such as BlackBoard, Moodle, Desire2Learn (e.g. individual user tracking, course-based)
  - **Visualisation of student activity** for promotion of SDL processes via Student Activity Meter
  - Providing insight into **individual & group interactions with the learning content** via LOCO-Analyst
  - **Social network analysis** generated from Learning Analytics tools such as **SNAPP** (Social Networks Adapting Pedagogical Practice) (e.g. visualization of student relationships established through participation in LMS discussions)
  - **Individual & group monitoring** generated from Learning Analytics tools such as **GLASS** (Gradient's Learning Analytics System) (e.g. visualization of student and group online event activity)
  - **Discourse analysis** generated from Learning Analytics tools such as **COHERE** (e.g. visualization of social and conceptual networks and connections)

INNOVATIVE Performance Indicators of Governance – selection, simplified

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Performance Indicators of Governance

LEADERSHIP'S COMPETENCIES to lead the implementation of VISIONS and GOALS (exemplary criteria include: establish a stable, shared long-term vision and a common sense of purpose; set clear, short-term achievable goals)

LEADERSHIP'S COMPETENCIES to lead the implementation of BUDGETING (exemplary criteria include: establish budgets and a clear fund-raising strategy (grants, fees, philanthropy, sponsorship))

LEADERSHIP'S COMPETENCIES to lead the implementation of PROCEDURES of STAFF PARTICIPATION & RESPONSIBILITY DISTRIBUTION (exemplary criteria include: consider views of stakeholders and partners; ensure staff embrace institutional aims & culture; get people to measure performance relative to aims; know people's strengths; channel their energy and passion to maximum effect; place responsibility and control of information in the hands of people who do the work; have two-way communication meetings, with an emphasis on clarifying, testing & listening)

LEADERSHIP'S COMPETENCIES to lead the implementation of a LEARNING ORGANISATION (exemplary criteria include: expect, and support staff, to strive for high standards; judge the system rather than people; manage morale, celebrate success, learn from failures; allow people doing the work freedom to experiment with method to improve performance; eetermine whether data on staff, communities or society would be useful to the institution)

INNOVATIVE Performance Indicators of Governance – selection, simplified

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Performance Indicators of Governance

LEADERSHIP'S COMPETENCIES to lead the implementation of RISK MANAGEMENT (e.g. data privacy, data security, finances, pandemics)

LEADERSHIP'S COMPETENCIES to lead the fostering of a STRATEGIC OPEN REPUBLIC of SCHOLARS & STUDENTS (Academic Community & Institutional Autonomy, integrated into a democratic state)

LEADERSHIP'S COMPETENCIES to lead the implementation of an expressis verbis-COMMITMENT to (the UNIVERSAL DECLARATION of) HUMAN RIGHTS (or a related national Constitution) (OMCU [Observatory Magna Charta Universitatum], 2020)

For desired but widely missing leadership competencies see: (Black et al. 2011; Black 2015, 61-62, Table 2; Hamlin & Patel 2017, particularly 6 ff.; Eversole et al. 2016; Lekchiri et al. 2018; Patel & Hamlin 2017; Patel et al. 2018; Ruiz & Hamlin 2018; Torres et al. 2015)

https://www.canada.ca/en/treasury-board-secretariat/services/professional-development/key-leadership-competency-profile.html

INNOVATIVE Performance Indicators for L&T –

SQELT PI Set (cf. https://evalag.de/sqelt/) – focused selection, simplified

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Performance Indicators of Learning & Teaching Environment – L&T Analytics

NUMBER and/or PERCENTAGE OF STUDENTS WITH NONTRADITIONAL BACKGROUND (exemplary criteria include low-income; non-academic families; disadvantaged ethnic and religious groups) (per higher education institution and/or per department/institute and/or per subject field and/or study programme)

NUMBER and/or PERCENTAGE OF STUDENTS WHO USE NETWORKING OPTIONS PROVIDED BY THE HIGHER EDUCATION INSTITUTION THAT MEET THEIR STUDY INTERESTS (e.g. student research groups)

NUMBER and DURATION OF STUDENT INTERACTIONS WITH TEACHING STAFF IN THE CLASSROOM/ON DIGITAL PLATFORMS/DURING ADDITIONAL ACTIVITIES (per semester/study period)

STUDENTS' GRADES OF INTRODUCTORY COURSES and/or EXAMINATIONS (e.g. in mathematics, languages) (per study programme)

INNOVATIVE Performance Indicators for L&T –

SQELT PI Set (cf. https://evalag.de/sqelt/) – focused selection, simplified

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Performance Indicators of Learning Competencies & Processes – L&T Analytics

STUDENT WORKLOAD (e.g. number of learning hours per semester week, number of courses)

AVERAGE DURATION PER STUDENT INTERACTION WITH COURSE ACTIVITIES
(e.g. solution of exercises, watching videos, listening to lecture, participation in working groups, etc.)

STUDENTS' DISPOSITIONS, VALUES AND ATTITUDES TOWARDS LEARNING
(measured on the basis of learner data and pedagogical descriptors, e.g. learning-related emotions such as enjoyment, curiosity, frustration, anxiety; ability in deactivating negative learning emotions; learning strategies)

STUDENTS' COMPETENCIES WITH RESPECT TO LEARNING and SELF-DIRECTED LEARNING (SDL)
(e.g. students' knowledge and understanding of learning theories, own learning processes, problem-based learning, research-based learning, internships, online learning, mobile learning, blended learning)

INNOVATIVE Performance Indicators for L&T –

SQELT PI Set (cf. https://evalag.de/sqelt/) – focused selection, simplified

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Performance Indicators of Teaching Competencies & Processes – L&T Analytics

PROPORTION OF TEACHING STAFF WHO PARTICIPATED IN PEDAGOGICAL TRAINING

QUALITY OF RECRUITMENT PROCEDURES FOR LECTURERS/ASSOCIATE PROFESSORS/FULL PROFESSORS
(e.g. procedural responsibilities; recruitment and selection process; recruitment quality criteria)

TEACHING STAFF'S DIDACTICS COMPETENCIES & PEDAGOGICAL KNOWLEDGE & SKILLS

TEACHING STAFF'S FEEDBACK TO STUDENTS (e.g. on work in progress, tests, completed assignments)

INNOVATIVE Performance Indicators for L&T –

SQELT PI Set (cf. https://evalag.de/sqelt/) – focused selection, simplified

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Performance Indicators of Learning Outcomes and Learning Gain and Their Assessment referring to Future Competencies – L&T Analytics

STUDENTS' LEARNING GAIN IN **HIGHER EDUCATION FOR SUSTAINABILITY DEVELOPMENT (HESD) COMPETENCIES** (e.g. according to (a revision of) the UNESCO's 17 Sustainability Development Goals)

STUDENTS' LEARNING GAIN IN **REFLECTIVE COMPETENCIES** (e.g. systemic thinking, forward thinking, critical thinking, self-perception competency)

STUDENTS' LEARNING GAIN IN LEARNING STRATEGIES AND **SELF-LEARNING COMPETENCIES** (e.g. knowledge of learning theories and practice; collaborative learning)

STUDENTS' EXAMINATION and ASSESSMENT RESULTS WITH RESPECT TO **QUANTITATIVE REASONING** (e.g. knowledge and skills of mathematical and statistical methodologies)

STUDENTS' EXAMINATION and ASSESSMENT RESULTS WITH RESPECT TO **INTERDISCIPLINARY COMPETENCIES** (e.g. ability to combine and synthesize knowledge and methodologies from different disciplines)

STUDENTS' **LEARNING GAIN** WITH RESPECT TO **SOCIAL COMPETENCIES** (e.g. team, communication and leadership competencies; empathy; ability to cooperate; ability to solve conflicts)

STUDENTS' **LEARNING GAIN** WITH RESPECT TO **SELF-COMPETENCIES** (e.g. self-determination; capability of decision and learning (SDL); flexibility of action; ability to reflect; sovereignty)

A few basic insights about innovative governance in HE(Is)

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- All strategies & endeavours for **quality enhancement & organisational development = governance activities** can be included into networked **QUALITY LITERACY &** rely on **PERFORMANCE INDICATORS**

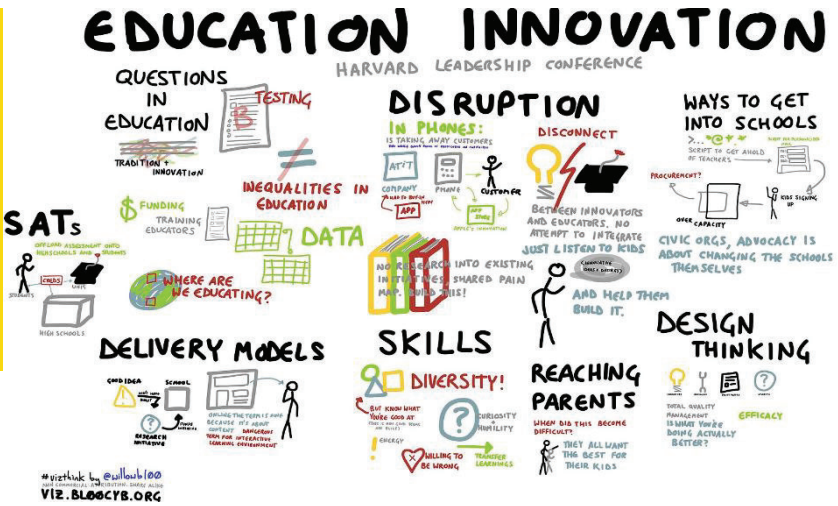
- **Performance indicators are richer than often assumed**
  - **Qualitative PIs & their complex data gathering methods**
  - **Generate/support orientation knowledge & action knowledge (& competencies)**
  - **Performance assessment in support of evidence-informed quality enhancement & organisational development**
  - **Can be irritating – critical potential**

- **Shift from teaching to learning** has found its way into **institutional strategy formation** (during the last decade or so) (e.g. Gaebel et al., 2018, 7)

- **HE(I) Governance** seems to be going to experience **more attention as a quality factor**

Summary

A few basic insights about innovative governance in HE



Required **INNOVATIONS** or **Improvements**

- **Quality Literacy**
  - **All** internal & external **stakeholders** to be included/activated
  - Incl. **Quality Culture competencies**
  - Incl. **leadership competencies**

- **Performance Indicators**
  - Especially in **L&T** & **Third Mission**
  - **Complex Qualitative Performance Indicators & their Data Gathering Methods**
  - **Theoretical justification** (e.g. theories of research, innovation, creativity, leadership, L&T, …)
  - **Quality criteria** (e.g. usefulness, appropriateness, fairness, precision)

- **Methods for gathering PI information & data**
  - **Performance Data Analytics** (incl. Big Data, AI: profiling & prediction; assessment & evaluation; adaptive systems & personalisation; intelligent tutoring systems) (e.g. Popenici & Kerr, 2017; Zawacki-Richter et al., 2019)

Innovative
GOVERNANCE

Innovative QUALITY LITERACY

Innovative Performance Indicators

Innovative Seven-Step Action Research Process Model (SSARPM)

QUALITY ENHANCEMENT & ORGANISATIONAL DEVELOPMENT

Flexible LEARNING ORGANISATION

Decision Making under Deep Uncertainty

From Theory to Practice

OPEN

Springer

Vincent A. W. J. Marchau • Warren E. Walker • Pieter J. T. M. Bloemen • Steven W. Popper (Editors), 2019

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