

Policy Learning in Higher Education and Universities' Governance. A Case Study of the 2008–2016 Policy Cycle in Romania



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Introduction

The governance principles and policies of the Romanian HEIs are shaped by a policy learning cycle that is most decisively described by three major policy initiatives at national level between 2008 and 2016:

- The broadly participative systemic foresight exercise carried between 2008 and 2011 (the Romanian Foresight Exercise in Higher Education—RFHE), that delivered a Strategic Vision for the Romanian HE system in 2025, emphasizing on *personalised learning*, *transparency*, and *diversification* of HEIs mission and governance (Executive Agency for Higher Education, Research, Development and Innovation Funding 2011).
- The Law of Education published in 2011, setting the frame for the classification of universities and study programs' ranking; the first cycle—the institutional evaluation of 70 Romanian universities undertaken by the Institutional Evaluation Programme (IEP) of the European University Association (EUA) between 2012 and 2014; the system evaluation report provided ten priorities for Romanian HE system and HEIs (with 30 recommendations), based on the 70 institutional evaluation reports.
- The request of the Romanian ministry of education (provided as a recommendation by the Directorate General for Higher Education) that all universities should publish updated institutional strategies during 2016.

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The first major systemic intervention—the national foresight exercise—aimed at *strategic capacity building* within HEIs (apart from policy deliverables which are not relevant for the analytical arguments of this paper); the second—the institutional evaluation of 70 HEIs—identified common *challenges* and proposed recommendations for further institutional and strategic development of the HEIs; the third initiative is not a systemic intervention but relevant here as a milestone in assessing the impact of the foresight exercise and of the institutional evaluation at HEIs level, allowing a substantiation of the current governance features of Romanian HEIs.

The Policy Learning Cycle in the Romanian Higher Education System

The Romanian Foresight Exercise in Higher Education

Implemented between 2008 and 2011 by the Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI),¹ the RFHE—the first national foresight exercise for the Romanian higher education—focused on systemic decision making and building consensus amongst various players in the system setting out to ensure the necessary systemic perspective and the desired freedom to rethink Romanian higher education. Considering its scope, the RFHE had an obviously close connection with the policy-making process but also went further in the area of epistemic communities by developing a knowledge-based network of experts and stakeholders in higher education that have been involved along the foresight process.

In order to outline the immediate impact (and long-term *expected* impact) of the RFHE on strategic capacity building at HEIs level, we should first explain the design and functions of RFHE as a systemic foresight exercise.

According to the FOR-Learn online guide, typical objectives of foresight exercises include: *informing policy-making; building networks; developing capabilities, including foresight culture; building strategic visions and creating a shared sense of commitment to these visions among foresight participants* (DG-JRC 2008). Da Costa et al. articulate six main functions of foresight for policy-making, namely: *informing policy; facilitating policy implementation (by building a common awareness and new networks); embedding participation in policy-making; supporting policy definition; reconfiguring the policy system (i.e. to address long-term challenges); and a symbolic function—indicating to the public that policy is based on rational information* (Da Costa et al. 2008).

¹www.uefiscdi.gov.ro, www.forhe.ro

Supporting policy definition through foresight [the scope of the RFHE] involves “jointly translating outcomes from the collective process into specific options for policy definition and implementation” according to Da Costa et al. (2008, p. 369). Therefore, the development of an inward (in terms of manageable within the project) epistemic community at national level was the condition for the RFHE to capitalize the collective outcomes. For that matter, based on various collaborative instruments ranging from expert panels to scenario building workshops and online consultations and debates, around 10,000 stakeholders and experts took part in the foresight process i.e. the process of refining the policy options that have been provided by the strategic vision for 2025 and the White Paper (Executive Agency for Higher Education, Research, Development and Innovation Funding, 2011).

Although the (strategic and policy) learning cycle at institutional level is rather gradual due to certain systemic factors, such as the fact that foresight exercises are exploratory in scope and even when normative their results do not include detailed articulations (Miles et al. 2002), or that stocktaking is moderate as the stakeholders involved in the foresight exercise carry a smaller responsibility compared to the decision-makers, the consultation exercise of the RFHE contributed to the development of a policy community (Curaj et al. 2010).

Aside from enabling this epistemic/policy community in Romania during the foresight exercise, in terms of developing a *foresight/strategic planning culture*, we ascertain that, given the broad participation of HEIs representatives in the process, the impact of the fully-fledged RFHE (largely participative and policy-oriented) consists in developing strategic capabilities at the institutional level—not only at systemic level.

Moreover, the RFHE had an explicit focus on building strategic institutional capacities implementing measures such as developing (and training HEIs decision makers) a Blueprint for Organizing Foresight in Universities² and enabling the FOR-Wiki sustainable international foresight community with Romanian stakeholders participation.³

We argue that, given the design and subsequent outcomes of the RFHE, strengthening strategic capacity building at HEIs level is the landmark of a policy learning cycle that should translate into enhanced and more articulated governance principles and policies in Romanian HEIs.

For further research and understanding of the mechanisms of facilitating capacity building at institutional level, we consider relevant to add here that the RFHE also underlines the need to consider the cognitive and epistemic challenges in the system approach, given not only the complexity and permeability of the higher education system but also the large variety of perspectives from different stakeholders accommodated in the participatory exercise. (Andreescu et al. 2012)

²<https://tinyurl.com/ya3jouru>.

³http://www.forwiki.ro/wiki/Main_Page.

The Institutional Evaluation of 70 Romanian Universities

Following the strategic initiative of the Romanian Ministry of National Education in 2011 of grouping 90 universities into three classification bands (*advanced research and teaching universities, teaching and scientific research universities—including teaching and artistic/creative universities, and teaching and learning universities*), an independent international evaluation of 70 universities was carried out by the Institutional Evaluation Programme (IEP), a quality assurance agency listed in the European Quality Assurance Register (EQAR) and an independent membership service of the European University Association (EUA), with the support of UEFISCDI.

The IEP has conducted similar coordinated evaluations in the past (in Bosnia and Herzegovina, Catalonia, Ireland, and Slovakia) but by its scale, the Romanian exercise was the foremost in the history of IEP. The ambitious evaluation exercise was carried out successfully by extensively expanding the IEP expert pool and improving the quality processes of the IEP secretariat in order to ensure consistency of judgement across the evaluation reports.

During and concluding the evaluation process, EUA and UEFISCDI published the two rounds evaluation reports for each university and a final aggregated evaluation report aiming at identifying common challenges and propose strategic recommendations for the Romanian HEIs.

The key findings arising from the 70 evaluation reports were addressing HEIs long-term strategic capacity, quality assurance and systemic architecture:

- *Despite the high commitment of senior leaders and academic and administrative staff to their institutions, the long-term strategic capacity of institutions is limited by the narrow scope of their autonomy, constant legislative change and financial uncertainties.*
- *The detailed regulatory framework and the way that the national quality assurance process is carried out reinforce institutional isomorphism across the sector, particularly because these aspects are combined with a strong tendency toward academic inbreeding and limited internationalisation in a number of universities.*
- *The higher education system in Romania is characterised by its fragmentation due to the existence of many small institutions, a pervasive lack of institutional cooperation and a variance in the sustainability and quality of the institutions.*

The final report set out 30 recommendations out of which some are addressed to the HEIs and others to national authorities. These recommendations have been grouped under ten thematic priorities (nine addressing HEIs and systemic governance and one addressing central governance exclusively): *stimulate institutional change, secure sustainable funding, invest in people, assure quality, promote student access and success, shift to student-centred learning, increase research capacity, engage with society, internationalise, rethink the higher education landscape* (Sursock 2014).

The request of the Romanian ministry of education that all universities should publish (updated) institutional strategies during 2016 was, certainly, a top-down initiative aimed at boosting the strategic focus of HEIs. The revised strategic plans allow us to carry an in-depth semantic analysis attempting to reveal the current governance principles of Romanian HEIs in the context of the policy learning cycle described earlier.

A Semantic Analysis for Understanding the Policy Learning Cycle and HEIs Governance Principles

In order to see the outcomes of the above-mentioned systemic measures in terms of strategic capacity building at HEIs level, to mark the policy learning cycle in the Romanian higher education system, and to profile the governance principles of Romanian HEIs, we analysed the redesigned institutional strategies of Romanian universities in relation to the strategic vision for the Romanian HE system (published in 2011) and the systemic evaluation report (published in 2014).

Research Methodology and Tools

The analysis was carried through a bibliometric method based on blending semantic and network analysis that enables the combined operation of complex parametric and non-parametric models, such as structural and loose semantic algorithms together with mathematical and statistical algorithms for dynamic visualisation of data.

In order to perform the semantic analysis, we used the open-source semantic software Tropes (ACETIC and CYBERLEX 2002).

The theory that the software is based on is integrating two theoretical work models: *propositional discourse analysis* (Ghiglione et al. 1995) and *predicative propositional analysis* (Kintsch and Dijk 1978). This analytic approach derives from the need to identify the *cognitive unit* for primary information processing and the *syntactic unit* to allow “clipping” the discourse. The minimal unit that meets both requirements is the *sentence*. In regard to content analysis, the theory is based on the fact that the sentence is exposing microworlds more or less articulated among each other, more or less completed. Therefrom *actors* (*actants* and *acted on*) appear, highlighted by acts (predicates) as being embodied by the argumentative strategies and the constraints that are constitutional to the linguistic system. The number of *references* (microworlds) that evolve around a topic depends on a number of central objects referred to as *nodal references*, which are the structural elements of the given semantic universe. Finally, a logical model for the construction of discourse is implemented in order to mark out the *cause-consequence*

facilitating the identification of the node that is generating the references, which plays an essential role in shaping and analysing the discourse (Ghiglione et al. 1995; Caragea and Curaj 2013).

The main outputs of Tropes relevant for the bibliometric analysis presented in this paper consist in matrixes of references (central topics containing mainly user-defined keywords) with directional cause-consequence relations depending on the relative positions of each reference in a sentence and the references co-occurrences. These outputs can be further processed with network analysis tools. For that matter, we used another open-source software for network analysis—Gephi.

The basic principle of the two software blending is that the network analysis software interprets the matrixes of *references* and their *relations* (or *semantic ontology* that is the Tropes output) as *nodes* and *edges*. The substantial benefit is that network analysis tools enhance Big Data visualisation through statistical algorithms that are suitable for semantic analysis. An example is the multi-level *modularity class* aggregation for decomposition of networks and identification of communities (Blondel et al. 2008) which, in semantic analysis, identify the modular subnetworks of references that are the discursive episodes i.e. the groups of keywords that most often occur in the same sentence or co-occur in different sentences but with the same connectors/keywords (Holeab et al. 2017).

Semantic Analysis and Results

The semantic analysis was performed on a corpus of 45 updated institutional strategies of Romanian HEIs (covering around 80% of the public HEIs). The files were retrieved from institutional websites and, therefore, the total of 45 documents do not reflect the actual number of universities that have revised their institutional strategies, but the number of HEIs that have published the strategic documents. Statistical data on the correspondence between the list of evaluated HEIs and the list of HEIs with revised strategies or on territorial distribution at national level is not to be included in this paper due to lack of analytical relevance.

The manifold process of the semantic analysis blended with network analysis of the 45 documents consisted of:

- (1) a preparatory phase in which we have formatted and cleaned the textual information by removing the redundant table of contents, introduction and annexes of each document, that could have resulted in inaccurate semantic ontologies and statistics;
- (2) building and refining a semantic dictionary i.e. the analysis scenario with a three-level tree structure containing 12 *semantic references* (classes) i.e. the nine thematic priorities provided by the external institutional evaluation report of EUA (numbered accordingly in Fig. 1) and the three strategic concepts promoted by the Strategic Vision for 2025, with 271 corresponding *keywords*

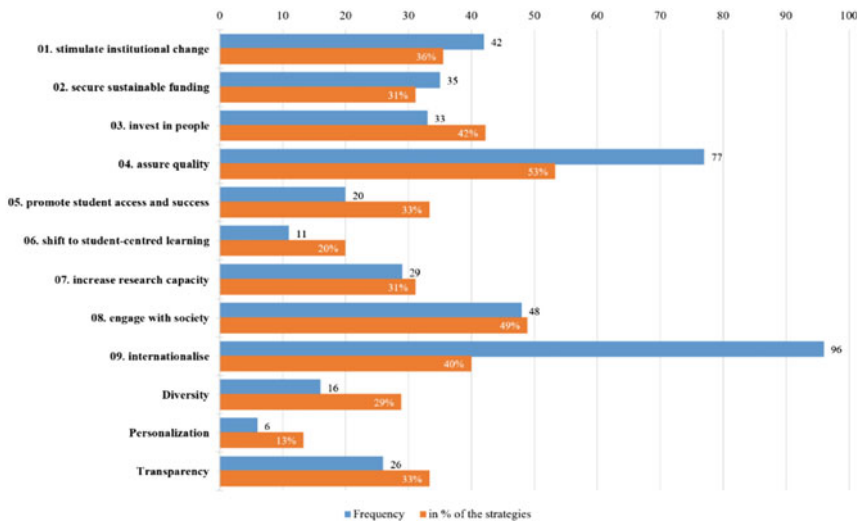


Fig. 1 The occurrences of the 12 semantic references (classes)

(performed with Tropes software); given the conceptual diversity of the recommendations provided by EUA under the nine priorities, the 12 semantic references have been further operationalized by 34 semantic subclasses (corresponding to the actual recommendations) under which the keywords have been grouped. The dictionary had to be built in Romanian—as the documents are written in Romanian, but the 12 semantic references have been inset in English for being presented in this paper since the semantic software does not operate with the classification levels for textual matching and semantic analysis of the documents.

We have to add here that we rigorously selected and input the 271 keywords that are best describing the nine priorities with their corresponding recommendations and the three strategic concepts. That is, taking for instance priority number 7 “Increase research capacity” and one of the associated recommendations of “developing a research culture”, if we had chosen “research” as a keyword—one that is so often used—then the analysis would have shown a consistent strategic focus of HEIs building on that specific recommendation. Instead, trying not to lose the comprehensiveness of representation, we strived for accuracy with keywords such as “young researchers” or “reduced teaching workload”, mirroring the actual content and meaning of the provided recommendations. At the same time, it is worth mentioning that the semantic dictionary—that is driving the whole analysis—reflects the view of the analyst and, therefore, is always improvable and open to further in-depth debate. A final methodological note is regarding the technical limitations of our analysis/software tools: the primary data for semantic analysis with Tropes consists in the digital form of words that is in bytes of Unicode characters including Romanian special characters. Since the documents have been

made public by HEIs in the form of officially signed scanned documents, in order to perform the analysis, we had to first use Optical Character Recognition algorithms, which in some cases (depending on the quality of the scan) identify only ASCII characters i.e. do not recognize certain Romanian letter with diacritics. This means that it is possible for the analysis to have omitted certain instances of keywords comprised in our dictionary (actually present in the documents scanned at a lower quality), resulting in a slight decrease of recorded semantic statistics compared to the actual situation—but those cases cannot be documented unless going thoroughly through the 16.8 million characters of our textual corpus, which was not the case;

- (3) building the visual representation (Fig. 5) of the semantic network of the entire textual corpus by employing force-directed graph layout algorithms on the semantic ontologies exported from Tropes, i.e. ForceAtlas2 with LinLog⁴ and low-scaling “Dissuade Hubs”⁵ modes distribution showing modularity classes (performed with Gephi software).

Results and Discussions

Figure 1 shows the frequencies of the 12 semantic references (as sums of their classified keywords occurrences)—marked with blue bars and labels. It can be easily observed that there are two key topics that the strategic plans of the HEIs refer to most abundantly, to a significantly higher extent than to the other topics: (no. 9) *internationalise* and (no. 4) *assure quality*. An explanation can be provided here.

In regard to the *internationalisation of higher education*, between 2014 and 2015, UEFISCDI has implemented a structural funds project that successfully delivered—following a highly participative process—a strategic framework and various methodological tools and guidelines for the internationalisation of the Romanian higher education, a functional platform for higher education marketing (Study in Romania⁶), and 19 HEIs internationalisation strategies⁷. Most of the universities participating in the process have published revised strategies that are included in the analysis presented in this paper. For that matter, the strategic capacity of Romanian HEIs addressing the topic of internationalisation has been

⁴ $a - r = 1$ in LinLog, meaning that visual densities in the graph denote structural densities, that is when the attraction force of the nodes depends less on distance, and the repulsion force depends more (Noack 2007).

⁵The *Dissuade Hubs* mode affects the shape of the graph by dividing the attraction force of each node by its degree plus one for nodes it points to, meaning it grants authorities (nodes with a high indegree) a more central position than hubs (nodes with a high outdegree) (Jacomy et al. 2014).

⁶<https://www.studyinromania.gov.ro/fp/index.php?>

⁷<http://iemu.forhe.ro/>

significantly strengthened; or, to a lesser extent of strategic significance, the priorities and measures on the topic were already available to a part of HEIs to be further included in their revised strategies analysed here.

As regards the priority to *assure quality*, we have to detail here the operationalisation framework of the recommendations provided by EUA. The semantic subclasses we have selected as best delineating the recommendations are *internal quality assurance*, *quality culture*, and *quality assurance*, with 3, 4 and 70 occurrences respectively. The corresponding keywords employed in the analysis are, of course, semantic markers of those topics. The simple fact that we used the rather general topic of quality assurance—that could not be avoided given the recommendations rationale—made it boost the statistics on this particular priority. While considering the systemic dynamics, the broad dialogue and increasingly high interest for quality assurance in the Romanian higher education over the past few years, *quality assurance* has been generously integrated in the institutional discourse.

Figure 1 also shows that, aside the topics of average interest, there are key topics that are rather marginally addressed by HEIs: *personalisation* (consistently articulated by the Strategic Vision for the Romanian Higher education in 2025 published in 2011), with only six occurrences in six documents (only one isolated reference per document) and the priority regarding the shift to *student-centred learning* (no. 6), with only 11 occurrences in nine documents. Marked with orange bars, the percentage of HEIs addressing each strategic priority shows that only *quality assurance* crossed the 50% threshold (referred to in 53% of the documents—24 out of the 45). An interesting fact is that the most frequently quoted key priority—*internationalise* (no. 9) is found only in 40% (18) of the institutional strategies; that is because half of the references are provided by only three of the 45 HEIs (HEI 25 with 25 and HEI 6 and 32 with 12), as shown in Fig. 2. A first general conclusion would be that, with an average of 34% coverage, the 12 key priorities are rather non-comprehensively addressed by HEIs in their strategic plans as of 2016.

Figure 2 depicts a rather heterogeneous “strategic landscape” to what concerns the nine priorities provided by the EUA report and the three strategic concepts promoted by the Strategic Vision for 2025. The first perspective of the heterogeneity is that the differences in frequencies within universities reflect their strategic focus; for instance, HEI 25 has a moderate focus on the priority to *invest in people* (five occurrences) and *to engage with society* (three occurrences) also briefly addressing (with one recorded occurrence each) *personalisation* and priorities no. 2, 4 and 5, while extensively referring to the *internationalisation* of HE (25 occurrences). There is also the detrimental aspect of the heterogeneity, namely that there is a certain lack of critical mass and consistency of the strategic discourse in relation to the main challenges identified for the Romanian HE system. Figure 3 shows that the strategic focus of HEIs is diverse in thematic coverage, intensity and distribution (with only one university equally addressing four topics—HEI 34).

As further details regarding the coverage of 12 key priorities, each of the 45 HEIs fails to address at least four priorities out of the 12 (except one HEI that fails

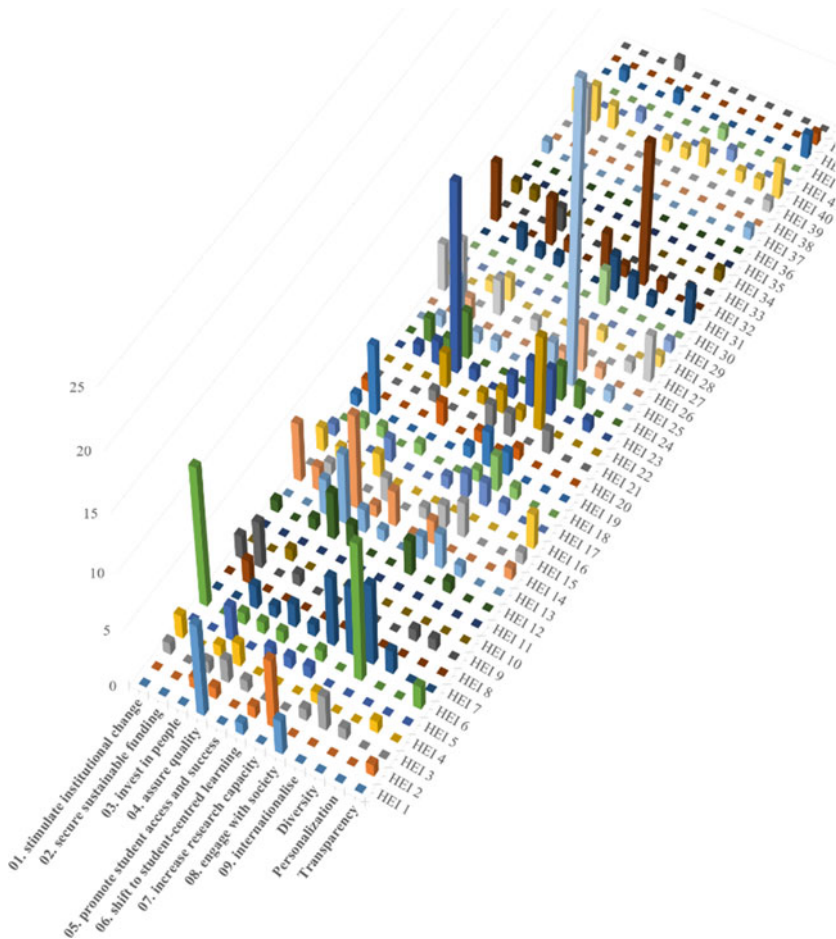
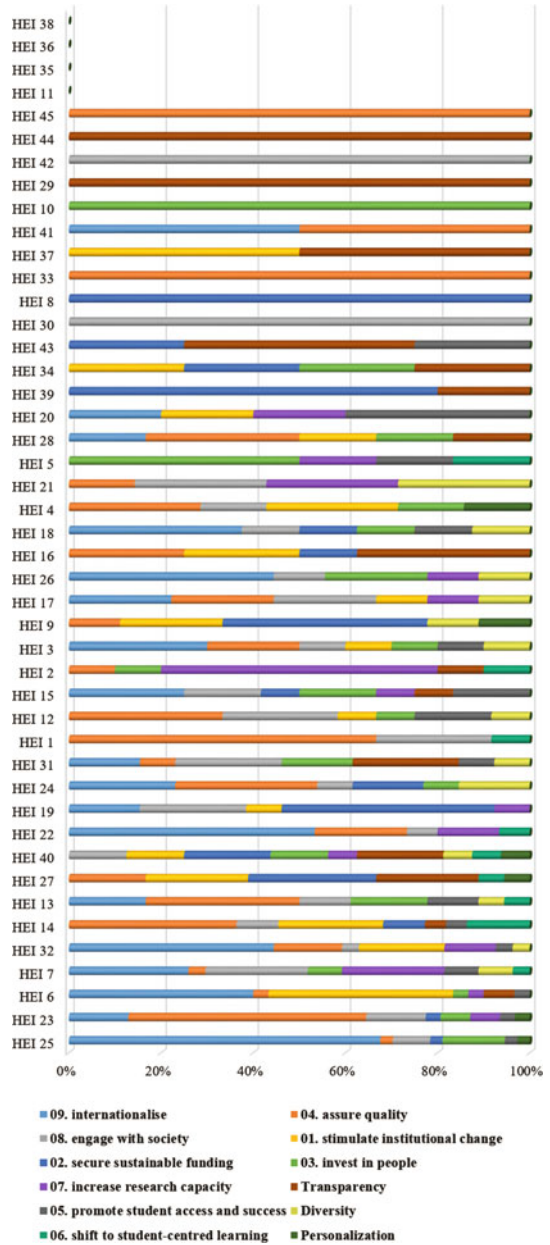


Fig. 2 The distribution of the 12 semantic references among HEIs strategic plans

to address only three); top five HEIs by total number of references (HEI 25, 23, 6, 7, and 32—at the base of Fig. 3) fail to address either four or five priorities while at the antipode eight HEIs address only one priority and four HEI do not address any of the strategic references (at the top of Fig. 3)—making it a cluster of 25% of the (45) HEIs that is placed outside the mainstream of what we have described to be the policy learning cycle in the Romanian higher education system.

Figure 4 offers the hierarchy of strategic topics (as given by the expressed interest of HEIs) and a more accurate image of the ascertained diverse focus/lack in consistency of the strategic discourse among the 45 HEIs. On the aggregated statistics, it can be observed that there is a cluster of five HEIs that are active in relation to the strategic framework described in this paper, a “middle” cluster of 13–20 HEIs and a cluster of 20 HEIs (to the right of the data plot in Fig. 4) delaying

Fig. 3 The distribution of the 12 semantic references among HEIs strategic plans (relative frequencies)



in addressing the core of strategic priorities and challenges identified at systemic level i.e. falling within the policy learning curve.

Beyond our findings so far, it can be observed that the three concepts promoted by the Strategic Vision for the Romanian Higher Education system in 2025—a key

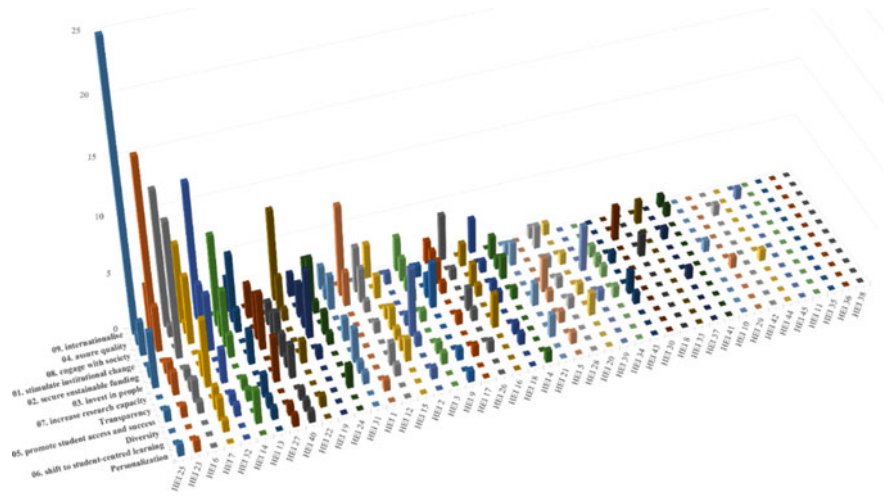


Fig. 4 The distribution of the 12 semantic references among HEIs strategic plans (aggregated values per line and column in descending order)

element of long-term strategic thinking ingredient of the policy learning cycle—are moreover lagging behind or, rather to say, they failed in bringing about a substantial impact on strategic capacity building at institutional level given the sufficient timespan between the publication of the strategic vision in 2011 and the revisions of the HEIs strategic plans in 2016.

Going one step deeper in the semantic analysis, further employment of network algorithms reveals the conceptual (by semantic) connection between the 12 strategic priorities as reflected by the rhetoric of the 45 institutional strategies. Quoted between brackets, the terms with high occurrences among the 34 semantic subclasses (corresponding to the actual recommendations that describe the nine thematic priorities provided by the EUA institutional evaluation report) are included in the graph in Fig. 5 in order to better understand the structure of the strategic discourse of HEIs. It should be noted that the size of these components/subclasses is already comprised in the size of the 12 semantic classes and does not add up to the total recorded frequency of the 12 references. A significant evidence here—already discussed before—is that the remarkable HEIs’ focus on *assuring quality* (priority no. 4) is almost exclusively attributed to generic “quality assurance” references (marked with light blue colour).

Figure 5⁸ shows the modular classes i.e. thematic subnetworks of references with strong connections among them. For that matter, we can further observe that (marked with green nodes and edges) *internationalisation* of HE (priority no. 9) is

⁸The size of each node in the semantic graph indicates the occurrence of the semantic reference while the size of the edge indicates the occurrence of the semantic connection between two nodes (occurrence within the same sentence).



Fig. 5 The semantic network of the textual corpus (45 institutional strategies)

described by HEIs as mainly linking with *engaging with society* (no. 8), with *increasing research capacity* (no. 7) and with “governance”—**which** is in fact a semantic decomposition/determinant of priority no. 1—*stimulate institutional change* and does not fall within the network of that priority (marked with pink colour) due to the discursive structure of the strategic documents i.e. closeness to priorities no. 9 and no. 8. Also, we can observe that the HEIs address “research culture” as rather relating to *investment in people* (priority no. 3) than to its actual semantic class of *increasing research capacity* (priority no. 7) (marked with red colour). Another interesting fact is that “regional development” (marked with light blue colour), although a subclass of priority no. 8—*engage with society*, is rather connected to *assuring quality* (priority no. 4).

It can also be observed that the strategic concepts promoted by the Strategic Vision for 2025 published in 2011—*diversity*, *personalisation* and *transparency*—are placed to some extent outside the strategic discourse encompassing the nine thematic priorities with no relevant semantic connection to those and in a distinct modular class (therefore not operationally integrated within the understanding of the nine priorities provided by EUA) (marked with blue-violet colour), aside the

fact that *personalisation* is the most marginally addressed topic, included in Fig. 5 indiscernible accordingly, at the very bottom of the graph with pink colour.

On a general note, Fig. 5 shows that the overall strategic discourse is, to a certain extent, inconsistent given the low number and weight of edges (between nodes/references).

Further analysis can focus on each institutional strategy and external evaluation report (European University Association (EUA—IEP 2013) respectively, to reveal the manner in which the EUA priorities were particularly addressed and substantiate HEIs governance profiles. While leaving this for further research, take for instance the top two universities (in Fig. 4) by total occurrences of semantic references describing the nine EUA recommendations:

- HEI no. 25 focuses notably on *internationalisation* (25 occurrences) but also on *investing in people* (five occurrences) and on *engaging with society* (three occurrences), addressing at the same time (rather inconsistently with only one occurrence) the topics of *quality assurance*, *securing sustainable funding* and *promoting student access and success*; the hierarchy of challenges that HEI no. 25 is confronting with, quantitatively given by the number of particular recommendations provided by EUA for the university is: *internationalisation* (five recommendations), *increase research capacity* (four recommendations), *engage with society* (two recommendations), and *shift to student-centred learning* (two recommendations). Thus, we can note that, on the one hand, this HEI focuses on its main challenge (*internationalisation*) and on other two challenges (*engaging with society* and *student access and success*) as recommended by EUA, but, on the other hand, fails to address the *research*-related second most important challenge. Also, HEI no. 25 has a significant focus on *quality assurance*, despite the fact that the evaluation report did not provide any recommendation on that topic. We do not criticize here the strategic options of this particular HEI, but only mirror them to the recommendations provided by the external evaluation report in 2014. Solely from that perspective, it can be ascertained that this particular HEI committed only in part to its identified challenges—to an insignificant extent, considering that the focus of *internationalisation* comes from the already existing internationalisation strategy of the HEI, or to a significant extent, considering that focusing mainly on its most important challenge (*internationalisation*) can denote, inter alia, incremental capacity building.
- HEI no. 23 focuses mainly on *quality assurance* (16 occurrences), has a moderate focus on *internationalisation* and *engaging with society* (with four occurrences each), and also addresses the challenges of *investing in people*, *increasing research capacity* (two occurrences each), *securing sustainable funding*, and *promoting student access and success* (only one occurrence each). The institutional evaluation report (extensively) provided ten recommendations for *stimulating institutional change*, four recommendations for *promoting student access and success*, three recommendations for *internationalisation*, three recommendations for *increasing research capacity* and two recommendations for *engaging with society*. It is obvious that the revised institutional strategy of

this particular university is not correlated with the external evaluation report when it comes to the major challenge of the university—namely *assuring quality* versus *stimulating institutional change*. It is an obvious problem of prioritisation while otherwise there is a significant correlation in the topics covered.

Conclusions and Recommendations for Further Research

Our analysis has pointed out several drawbacks and certain major issues—discussed in previous sections of the paper—when looking at how the described systemic initiatives have shaped strategic capacity building in HEIs, or how the actual governance profiles and strategic focus of HEIs reflect the former initiatives. We will recall a few here.

The redesigned institutional strategies of Romanian HEIs (as of 2016) reflect a rather deficient and heterogeneous strategic discourse in relation to the priorities provided by the EUA evaluation report (2014) and the strategic concepts promoted by the Strategic Vision for 2025 (2011): on the one hand, there are challenges and strategic priorities that are abundantly addressed while there are also topics of low to very low interest from HEIs; on the other hand, with an average of 34% thematic coverage, the key priorities identified by systemic measures are rather non-comprehensively addressed by HEIs in their strategic plans. For that matter, each of the 45 HEIs included in the analysis fails to address at least four priorities out of the 12 (except one HEI that fails to address only three).

When looking at the relative impact of the two major systemic interventions (the RFHE and the external institutional evaluation exercise), the vision for the Romanian higher education system published in 2011 is (even more) lagging behind in arousing the interest of HEIs in the strategic concepts it promoted.

Moreover, we noted that the overall strategic discourse of HEIs is, to a certain extent to what regards the 12 priorities, inconsistent—as shown by the network analysis of the semantic ontology. The network analysis also outlined certain interesting facts about how the 12 strategic concepts/challenges are operationalised by the Romanian HEIs.

These rather bluntly expressed conclusions and findings could make one believe that the systemic interventions failed to have a positive impact on HEIs governance and capacity building. In fact, they depict only “frames” of an “unfolding motion picture”. In our endeavour to outline a policy learning cycle in the Romanian higher education system and its impact on the governance profiles of HEIs, we believe that the expected impacts are still to be assessed. No definitive conclusions are to be drawn at this stage; especially since our semantic analysis presented herein does not account for case studies (with all its other limitations), since the brief analysis of two of the institutional strategies and corresponding institutional evaluation reports included in the previous section indicates that there is more to understand about the

strategic governance dynamics at Romanian HEIs level, since HEIs governance should be analysed in close relation to higher education funding (Miroiu and Vlăsceanu 2012), and moreover since the strategic capacity building process is incremental.

We hope that future systemic and grassroots initiatives will give us food for thought and research to soon reassess and have a better overview of the policy learning cycle in the Romanian higher education system.

Taking on expanding the relevance of our paper beyond the Romanian case study, we would dissociate the policy initiatives (systemic foresight in higher education and international institutional evaluation of HEIs) from the semantic analysis, considering the fact that systemic foresight and the institutional evaluation of HEIs are extensively substantiated research topics while the IEP of EUA is a well-established instrument with proven results, and abundant research is available in this respect. We argue that the bibliometric methodology based on semantic analysis blended with network analysis—as described and presented in this paper—is a valuable tool both for policymakers and policy analysts and for HEIs leaders; it can improve evidence-based policy-making and systemic impact analysis while it is also beneficial in rendering the coherence and the focus of (coordinated) institutional strategic documents. For that matter—and also considering the availability of the open source instruments employed -, we believe that our methodology is relevant for further research on HE policy and governance of HEIs in a variety of institutional and national settings across EHEA.

References

- ACETIC & CYBERLEX. (2002). *Semantic knowledge-tropes*. Retrieved September 11, 2017 <https://www.semantic-knowledge.com/tropes.htm>.
- Andreescu, L., Gheorghiu, R., Zulean, M., & Curaj, A. (2012). Systemic foresight for Romanian higher education. In A. Curaj, P. Scott, L. Vlasceanu, & L. Wilson (Eds.), *European Higher Education at the Crossroads* (pp. 995–1017). Dordrecht: Springer. https://doi.org/10.1007/978-94-007-3937-6_50.
- Blondel, V., Guillaume, J. L., Lambiotte, R., & Lefebvre, E. (2008). Fast unfolding of communities in large networks. *Journal of Statistical Mechanics: Theory and Experiment*, 10.
- Caragea, D., & Curaj, A. (2013). *Analiza automată a discursului*. Bucharest: Romanian Academy Publishing House.
- Curaj, A., Gheorghiu, R., & Holeab, C. (2010). *Nurturing policy communities through foresight exercises. The case of Romanian higher education*. Paper presented at the Proceedings of the 6th International Seminar on the Quality Management in Higher Education, Tulcea.
- Da Costa, O., Warnke, P., Cagnin, C., & Scapolo, F. (2008). The impact of foresight on policy-making: Insights from the FORLEARN mutual learning process. *Technology Analysis & Strategic Management*, 20(3), 369–387.
- DG-JRC. (2008). *FOR-LEARN online foresight guide*. Retrieved September 11, 2017, from FOR-LEARN http://forlearn.jrc.ec.europa.eu/guide/0_home/.
- European University Association (EUA—IEP). (2013). *70 institutional evaluation reports*. Bucharest: UEFISCDI.

- Executive Agency for Higher Education Research Development and Innovation Funding. (2011). *White paper: For quality and leadership in Romanian higher education in 2025*. Bucharest: UEFISCDI.
- Ghiglione, R., Kerenbosch, C., & Landré, A. (1995). *L'analyse cognitivo-discursive*. Grenoble: Presses Universitaires de Grenoble.
- Holeab, C., Păunică, M., & Curaj, A. (2017). A complex method of semantic bibliometrics for revealing conceptual profiles and trends in scientific literature. The case of future-oriented technology analysis (FTA). *Science. Economic Computation and Economic Cybernetics Studies and Research*, 51(2), 23–38.
- Jacomy, M., Venturini, T., Heymann, S., & Bastian, M. (2014). ForceAtlas2, a continuous graph layout algorithm for handy network visualization designed for the Gephi software. *PLoS one*, 9(6).
- Kintsch, W., & Dijk, T. A. V. (1978). Toward a model of text comprehension and production. *Psychological Review*, 85(5), 363–394.
- Miles, I., Keenan, M., & Kaivo-Oja, J. (2002). *Handbook of knowledge society foresight*. Dublin: European Foundation for the Improvement of Living and Working Conditions.
- Miroiu, A., & Vlăsceanu, L. (2012). Relating quality and funding: The Romanian case. In A. Curaj, P. Scott, L. Vlăsceanu, & L. Wilson (Eds.), *European higher education at the crossroads* (pp. 791–807). Dordrecht: Springer. https://doi.org/10.1007/978-94-007-3937-6_50.
- Noack, A. (2007). Energy models for graph clustering. *Journal of Graph Algorithms and Applications*, 11, 453–480.
- Sursock, A. (2014). *Institutional evaluation programme. Ten priorities for Romanian higher education*. Retrieved September 11, 2017, from UEFISCDI http://pe.forhe.ro/sites/default/files/iep_r0_system_report_en_final_2014_0.pdf.

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