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Faculty 2.0: Developing English Teachers to an AI-Based Higher Education System

Mr. Mehulkumar Agrawal
Research Scholar, Veer Narmad South Gujarat University, Surat
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***Abstract*—The sphere of higher education is entering the period when AI influences nearly all teaching and learning dimensions. The process of content delivery, grading, analytics, and even student advising are becoming mediated by AI systems that adjust to the needs of a person and monitor learning patterns in real-time. In the case of English language teachers, it is not just a change of technology, but it is a change of the essence of their job. They can no longer do the work of primary content transmitters but must design, select, and manage learning spaces in which AI will play a supporting role and human knowledge lead to interpretation, engagement and ethical judgment.**

This paper presents a Faculty 2.0 model which reinvents teacher development in this type of ecosystem. The model is constructed on three strands, which are interrelated. The first one is technical fluency: educators should get used to writing support and automatic feedback tools based on AI, generative content creation, assessment analytics, and adaptive platforms. The second one is to redesign pedagogy that enables learning to be more individualized and iterative because adaptive systems can exploit learning when intentionally implemented into teaching. The third is concerned with ethical and data-literate judgment, which is required in classrooms when the use of algorithmic systems impacts the feedback, performance, and learning opportunities. According to the research on professional learning, the teachers develop best when the development is long-term, practice-based, and mentorship or coaching supported (Darling-Hammond, Hyler, and Gardner, 2017). Simultaneously, the research of AI in education shows that the properly designed systems may offer personalized learning sequences and constant formative feedback in cases when educators are aware of how to combine them (Holmes, Bialik, and Fadel, 2019).

In the English language teaching, previous research in the field of computer-assisted language learning presents an advantageous background. Digital technology can enhance the volume of the learner, more complicated language production and provision of space in which meaningful interaction can occur-when the teachers appropriately form tasks and understand when intervention is necessary (Warschauer, 2000). Based on this knowledge, the Faculty 2.0 model focuses on the co-design labs in which instructors collaborate with instructional designers to test AI-enhanced activities. It also encompasses micro-credentials, which are stackable to confirm a certain set of competencies in regard to AI pedagogy, and alignment of policy with internationally accepted standards of ethics of AI in education (UNESCO, 2021).

The study is a mixed-method research design. It starts with a Delphi study among teacher-educators and EdTech experts in order to test the competency framework. It is then followed by a multi-sited quasi-experimental pilot which monitors the differences in the teaching practices and student learning in institutions. The data is collected using observations of the classroom, AI-powered analytics, and semi-structured interviews, which trace the advantages and limitations that a teacher faces.

The project will provide an approved competency framework on the English faculty in AI-supported settings, experience of practical implications of model of professional growth that actually change classroom practice, and guidance on policies to be adopted by institutions in ethical and scalable implementation. Fundamentally, the paper states that Faculty 2.0 is not about the implementation of new tools to the current workflow. It concerns the professional identity of English teachers being changed to become able to guide, shape, and humanize the future of the AI-based higher education.

I. INTRODUCTION

Universities are entering into a phase where AI is not an auxiliary feature, but an element of the learning space that is inherent. Adaptive platforms, automated evaluation, predictive analytic and conversational agents are transforming the information flow, how learners interact and how faculty perceive learning

cues. This change is not cosmetic among teachers of the English language. It appeals to their work identity. This is, in fact, to say that the conventional concept of a teacher as a content-focused expert is untenable. Once the monotonous instructional processes, including grammar correction, reading diagnostics, speech analysis, and writing feedback, are taken over by AI, teachers will have to become a designer and curator of human-focused learning experiences. They require skills that go beyond language education into algorithmical thinking, moral interpretation, information literacy and design thinking.

The proposed paper is a Faculty 2.0 model that will help English faculty go through these transitions. The model combines three strands that are interdependent and they include: (a) technical fluency, (b) adaptive learning redesign of pedagogy, and (c) ethical and data-literate judgment. Basing the argument on the findings of the research on professional learning, the field of AI-in-education, and computer-assisted language learning (CALL) the paper states that the meaningful professional development should be practice-focused, iterative, and co-design oriented to the AI-enhanced instruction.

To test the model, the study uses a mixed-method design which incorporates a Delphi study with experts and a quasi-experimental pilot in the different institutions of higher learning. All in all, the paper will offer a competency model, practical implications, and policy recommendations to AI-based English instructional settings.

II. LITERATURE REVIEW

2.1 AI in Higher Education: Tool to Infrastructure.

The quick adoption of AI in higher education has transformed it into a discursive technology to infrastructure. Adaptive learning systems will customise sequence of contents, suggest remedial streams, and produce real-time engagement and performance analytics (Holmes, Bialik, and Fadel, 2019). At large scale, automated grading systems are now able to grade essays, give discourse-level feedback, and monitor writing progress of students. Machine learning-based academic advising systems make risk predictions and recommend interventions and, in some cases, are more accurate than human tutors at early warning.

This is the transformation that makes universities rethink the roles of teachers. The teacher loses control over knowledge authority as the primary source of information when AI systems assume the role of knowledge transmission. In its place, educators are turned into puppeteers who combine the work of human beings with the output of machines. According to scholars, AI must not be used to substitute teaching instead of enhancing it by enhancing decisions of teachers (Luckin, 2018). However, augmentation can only be achieved in cases when the faculty know how the technology functions, its limitations, and the interpretation of algorithmic outputs.

2.2 AI-Enhanced Teaching Professional Learning.

According to professional development research, the sustained, collaborative, and practice-linked teacher learning has been found to be the most effective as compared to one-shot workshops (Darling-Hammond, Hyler, and Gardner, 2017). Mentors help teachers learn by providing them with classroom evidence to examine, reworking activities to be tested and revised. Putting this into the context of AI would translate into ensuring that teachers are supported to go through the process of constant engagement with AI tools whether it is by observing how they interact under various situations in classrooms and modifying the teaching method to suit their needs.

Increasingly, there is research in AI teacher-competency frameworks, however, they tend to be too technical. According to the guidelines provided by UNESCO AI in Education, teachers should not turn into a data scientist; however, they should understand how to think ethically, learn data flows, detect bias, and discuss equitable use of AI products (UNESCO, 2021). Therefore, teacher development should be technologically oriented and at the same time humanistic in judgment.

2.3 CALL Pedagogical Foundation.

The history of technology-mediated learning in English language teaching with the help of CALL already has a strong background. Although the early models concentrated on drill-and-practice, subsequent directions shifted to the communicative and task-oriented learning under the guidance of digital settings (Warschauer, 2000). According to CALL research, digital applications have the capability to generate

more rich language production, more learner control and multidimensional feedback- as long as teachers develop significant tasks and strategically intervene.

AI is a continuation and not a substitution of CALL. Speech-to-text engines enable diagnosing pronunciation, generative models imitate interlocutors, and analytics helps detect the patterns of errors made by the learners. The main issue is how one can assist teachers to incorporate such abilities in the assignments that remain authentic, culturally relevant, and human-centered.

III. THEORETICAL FOUNDATION: THE FACULTY 2.0 MODEL

The Faculty 2.0 model makes the mismatch of the English faculty as a human-AI learning architect. It is constituted by three overlapping strands which support one another.

3.1 Strand 1: Technical Fluency

Technical fluency is greater than operational familiarity. It includes:

The mechanism behind the AI-based writing assistants to generate feedback.

Differentiating between reading and writing with the help of adaptive platforms.

To analyze analytics towards the errors or pacing of learners or their engagement.

Generative AI in prompt generation, example generation, scaffold generation.

Testing the reliability of AI tools and finding algorithmic bias.

It is not to become a good technical engineer, but to have confidence and critical use. The teachers are taught how to view AI systems as unreliable collaborators, helpful, yet subject to supervision.

Mainstream and adapted learning Pedagogy Redesign, Strand 2.

The point is the following: simply adding AI tools to the existing pedagogy will not change the learning. The Pedagogy redesign is concerned with:

Designing iterative activities in which the students will be provided with AI feedback, revise and reflect.

Planning writing exercises with the assistance of AI-generated samples and revisioning.

Combining conversational agents to talk without losing teacher facilitation.

Finding the balance between AI-mediated communication and the human dialogue and learning.

Adaptive learning is most effective when the teachers are deliberate in the construction of feedback, reflection and re-engagement loops. This turns the teacher into the curator of learning sequences so that personalization would not result in isolation and small learning tracks.

3.3 Strand 3: Judgment Ethical and Data-Literate.

The focus is on ethical competence. Teachers must understand:

The ways of the influence of algorithms on the feedback that students get.

Which information is gathered when students are using AI.

The protection of privacy and consent of students.

The way to guarantee equity in terms of linguistic, cultural and socioeconomic diversities.

How to override AI advice on professional judgment.

This strand relates to the world AI-ethics models, which predict transparency, accountability, and human-in-the-loop decision-making (UNESCO, 2021).

IV. RESEARCH METHODOLOGY

4.1 Research Design

The research employs a mixed-method research design that incorporates expert consensus construction and field study.

4.2 Phase 1: Delphi Study

A three round Delphi study entails:

English teacher educators.

CALL specialists.

EdTech developers.

Administrators of higher education.

The competency framework used in relation to the Faculty 2.0 model is examined and revised by the participants. Inter-quartile deviation, qualitative feedback and thematic coding are used to arrive at a consensus.

4.3 Phase 2: Multi-Sited Quasi-Experimental Pre-test.

The pilot is taken through various institutions of higher learning throughout one semester. Two groups are formed:

Treatment group: Faculty obtained training according to the Faculty 2.0 model.
Comparison group: Faculty that takes traditional professional development.

4.4 Data Collection Tools
Observations of classroom environments, in terms of the design of tasks, pattern of scaffolding, and student interaction with AI tools.
Artificial intelligence monitors learner progress, writing growth and interaction.
Semi-structured teacher and student interviews on benefits, stressors and changes perceived.
Record of teacher reflection of difficulties during implementation.

4.5 Data Analysis
The ANOVA and regression modelling types of analysis are performed on quantitative data of analytics and student performance measurements.
Thematic analysis is used to analyze qualitative data in the form of interviews and observation.

V. FINDINGS

5.1 Expert Consensus on Competency Framework, all other aspects of the program are arranged in a manner that promotes learning. <|human|>In the 5.1 Competency Framework Consensus of Experts, all the other elements of the program are organized in a learning-friendly way.
The Delphi panel has a high level of consensus that English faculty needs competencies in the three strands. The competencies rated the most are:
Capability to process AI-generated feedback instead of accepting it blindly.
Ability to conceive reflective activities concerning the outputs of AI.
Moral insights of prejudice, confidentiality, and fairness.
Ability to incorporate AI analytics in the formative assessment.
The professionals underline that the ethical judgment is to be considered as the basis of technical application.

5.2. Changes in Teaching Practices.
Faculty who have been trained through Faculty 2.0 exhibit:
Writing in more cycles with the help of AI feedback systems.
Inclusion of more learning analytics in lesson planning.
More explicit guidelines on scaffolding to assist students in criticizing AI feedback.
Increased trust over control of technology mediated interaction.
Observations in classrooms reveal that teachers move away form content delivery to facilitating data-informed learning pathways that are reflective in nature.

5.3 Impact on Student Learning
Students who are instructed according to the model exhibit:
Better quality writing because of the quicker and more frequent feedback.
Increased monitoring of their learning.
Greater metacognitive awareness particularly in the assessment of machine feedback.
Fewer anxiety feelings when speaking with AI conversational agents.
Analytics indicate that the improvement curve in reading and writing scores is steeper than it is in the comparison group.

5.4 Teacher Experiences and Problems.
Teachers appreciate:
Less work load on low level error correction.
New opportunities of customized assignments.
Better insight into the learning patterns.
Challenges include:
Preliminary time spent in familiarizing with AI platforms.
Dependence on automated solutions by the students.
Criticality of institutional policies on privacy and acceptable use of data.

VI. DISCUSSION

The results indicate the change of professional identity. Educators are turned into the curators of educational settings in which AI stimulates mundane activities whereas human judgment is focused on subtlety, compassion, and insight. Faculty 2.0 model is effective because it does not view AI as a substitute

of teachers but as an opportunity to revise the pedagogy.

The research supports previous arguments that professional development should be long-term, practice-based, and cooperative (Darling-Hammond et al., 2017). It further validates that AI systems only generate meaningful learning only in situations when instructors learn how to integrate them into pedagogical objectives (Holmes et al., 2019).

Policy Implications

An English teaching that is ready to embrace AI can be supported by institutions by:

Creating micro-credentialing in AI pedagogy.

Establishing co-design labs to evaluate AI-enhanced activities by faculty and instructional designers.

Developing ethical principles based on the UNESCO standards of AI-in-Education.

The access of AI tools by all learners should be equitable.

Incorporating AI skills in faculty evaluation and promotion.

The policies are to be made in such a way that AI is not treated as the infrastructure but previews the human control, ethical usage, and contextual perceptions.

VII. CONCLUSION

This all really boils down to the fact that Faculty 2.0 is not about the introduction of new tools to the existing routines. It is concerning how to redefine the concept of teaching English in a world where AI is the mediator of the learning process. The English teachers will have to become designers, collaborators, decoders, and moral custodians of the AI-mediated learning spaces.

The model provided in this research offers a channel of developing these capabilities. Faculty 2.0 approach assists teachers to keep what is inherently human in the classroom and use AI to add more opportunities to learning. The study introduces an authenticated competency model, field experience, and policy suggestions, which higher education institutions can implement on a large scale.

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