The Art of Taming AI and Digital Tools in the FLEND (Flip / Blend Integrated) Class

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Abstract: Roosevelt's famous quote, "We cannot always build the future for our youth, but we can build our youth for the future," underscores the essential connection between education and the ever-changing global landscape. In today's rapidly evolving world, marked by the Fourth Industrial Revolution (4IR), traditional education methods that focus on IO often struggle to keep pace (Krishnan, 2020), especially with the emergence of new, unpredictable technologies like AI and rapid advancements in digital tools. To bridge this gap, a methodology called FLEND (Flipped and Blended Learning Integrated) has been developed. FLEND focuses on cultivating students' knowledge while enhancing their digital and leadership-oriented skills. This paper will introduce the complementary relationship between flipped and blended learning and explore how AI and digital tools can help students learn how to learn. Teachers can use AI to create tailored language activities that promote engagement and personalized learning, customize comprehension passages to meet individual student needs and levels, and incorporate AI-generated "Smart Questions" to encourage critical thinking. As for the students, they create a Class Data Bank (CDB), a repository that saves statistics, facts, and quotes, becoming a valuable resource for further activities, including writing, discussions, and debates. Additionally, they create lesson-related posters that help develop visual literacy, foster creativity, and enhance communication. Finally, they produce videos that showcase their creativity, critical thinking, and communication abilities. In summary, the FLEND methodology demonstrates that AI is not a malevolent tool to be banned; rather, it should be "tamed" to serve students effectively and efficiently when integrated into the modern learning environment.

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I. INTRODUCTION

In today's rapidly evolving world, traditional education methods may struggle to keep pace, especially with the emergence of new, unpredictable forces like AI. As Daniel Fitzpatrick puts it, "The world of education is at a crossroads. Rapid advancements in artificial intelligence are changing the way we live, work, and interact with one another. As educators, we have a responsibility to prepare our students for the future they will inhabit, yet many of us feel ill-equipped to navigate this brave new world of AI in the classroom" (Fitzpatrick, 2023).

The second major challenge is pedagogical: Does traditional education prepare students for the future? Jack Ma asserts, "If we do not change the way we teach, in 30 years we'll be in trouble. We teach our kids things from the past 200 years, it's knowledge-based, and we cannot teach our kids to compete with machines who'll be smarter." He continues, "We have to teach our kids something unique, so that a machine can never catch up with us: values, believing, independent thinking, teamwork, care for others—the soft skills" (Ma, 2018).

II. RESULTS

In response to this challenge, the core concept of FLEND (Flip and Blend Integrated) (Fethi, 2024) is designed to offer a flexible and engaging learning experience in a digital-based classroom. This approach enables learners to develop not only their English proficiency but also their leadership abilities and digital skills by exploring and adopting the latest tools, including AI. My paper, based on my experience teaching English at <u>High Up Academy for English and Leadership</u>, will explore the following areas:

- A. Part1: Definitions and Concepts: Flip Blend Flend
- B. Part2: AI Generators and Digital Tools: Their Role in FLEND Classrooms for Teachers and Students

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- A. Part1: Definitions and concepts: Flip Blend FLEND
- Defining and Differentiating: Flipped Learning, Blended Learning, and FLEND

Bergmann and Sams define Flipped Learning as a pedagogical approach in which direct instruction shifts from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter. (Bergmann & Sams, 2014). However, Blended Learning is an approach to learning that combines face-to-face and online learning experiences. Ideally, each (both online and offline) will complement the other by using its particular strength. Blended Learning can also be viewed as a kind of relic symbolic of the gap between 'traditional education' and digital learning. This implies that digital-only is the future and the ultimate incarnation of learning, which is a short-sighted view. The point, though, is that blended learning is a mix of old and new as much as it is a mix of physical and digital learning. (Staff, 2022).

The FLEND methodology, an instructional design model, cohesively integrates the Flip and Blend approaches, each characterized by adaptability and flexibility. It offers students an engaging and collaborative learning experience. Throughout the different stages of the lesson, teachers will alternately employ both methodologies to achieve complementary goals:

- Flipped Learning for: OCA (Out of Class Activities) and ICA (In Class Activities)
- Blended Learning for: asynchronous production, and creativity activities. (https://ijisrt.com/assets/upload/files/IJISRT23JUN1506.p df)
- FLEND: Bridging Flipped and Blended Learning as Complementary Approaches.

The FLEND methodology bridges Flipped Learning and Blended Learning, harmonizing their distinct strengths to create a holistic instructional approach, whose core goal is that every lesson stage is customized to the students' levels and needs. This is indeed one of the prime features of the 4th Industrial Revolution era.

• The lesson process includes:

✓ Prelude: This phase is the backbone of the lesson. It includes various activities such as creative fluency exercises, title finding, quote analysis, and Class Data Bank cr. The rationale for the prelude is to provide an indepth introduction to the theme, helping students explore the lesson and assimilate its context. This method fosters deeper engagement in subsequent activities.

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- ✓ Flip: This process is divided into two phases. The OCA (Out of Class Activities), or Individual Space Activities as termed by Bergmann and Sams (2012), are aimed at knowledge acquisition. In contrast, the ICA (In Class Activities) focuses on providing feedback, practicing skills, and engaging in leadership-oriented tasks. During this phase, students have ample time to work on practical projects, including digital posters, oral presentations, roundtable discussions, and roleplay activities.
- ✓ Blend: Blended learning methodology complements flipped learning. Instead of traditional homework, students use collaborative platforms, such as the Padlet app, to develop their production activities, provide peer feedback, and create their projects (PFP). Beyond language mastery, the class enhances multiple essential skills, including critical thinking, peer learning, and social interaction. Equally important, this online formative assessment tool helps teachers track students' progress and provide timely descriptive feedback (Types of Feedback, 2022). Additionally, blended learning promotes the efficient use of resources by utilizing digital tools and content to enrich the learning experience (Horn and Staker, 2014).
- ✓ Creativity Activities in Public (CAP): This project-based activity centers on practicing the targeted skills and assessing students' language acquisition. Students transform the in-class concepts into impactful real-world actions. They engage in various lesson-based activities that promote their leadership skills, help them understand real-life needs, and assess their language use. These activities include creating documentaries, participating in community service projects, and organizing student events such as conferences, fairs, and poster exhibitions. (https://ijisrt.com/flend-your-classfor-better-student-engagement)



Fig 1 FLEND Simplified: A Visual Guide to the Lesson Process

- B. Part2: AI Generators and Digital Tools: Their Role in FLEND Classrooms for Teachers and Students
- > Background
- Integration of AI generators and Digital tools in the different FLEND stages:
- ✓ The Role of AI and digital tools for Teachers and Students in the Prelude Stage
- ✓ Customizing Vocabulary and Tailoring Comprehension with AI in the Flipped OCA Stage
- ✓ Enhancing Engagement in the Flipped ICA Stage: Tips for Using AI Generators and Digital Tools
- ✓ Utilizing AI Generators in the BLEND Stage: Strategies for Integrating AI Tools in Production and Group Projects

III. BACKGROUND

It is undeniable that language textbooks have played a crucial role in the learning process. As Richards (2001) notes, "they (textbooks) serve as the basis for much of the language input learners receive and the language practice that occurs in the classroom" (p. 1). The proponents even contend that textbooks offer a well-organized framework and thoughtfully curated syllabus, ensuring that key language components — grammar, vocabulary, idiomatic expressions, and cultural nuances — are uniformly covered (EFL CAFE, 2023). However, upon closer examination, teachers are likely to conclude that the book may not fully align with the specific context of their school. "This prediction is usually confirmed as soon as they start planning lessons and using the material in class. In that precise moment of uneasiness, teachers may experience feelings of frustration and helplessness" (Birkner, 2023, p. 93). In his article The Role of Textbooks in a Language

Program (Richards, 2001), Jack C. Richards notes that textbooks have numerous limitations, which are often confirmed by teachers:

- Textbooks frequently overlook real issues.
- Textbooks are frequently designed for global audiences, they often fail to address the specific interests and needs of students, necessitating potential adaptations.
- The teacher's "creative" role can be diminished to that of a "technician", whose main task is to deliver materials created by others.
- Most textbooks are standardized and reflect the authors' interests and socio-cultural perspectives. (Richards, 2001)

Equally important, many textbook themes are outdated, which leads to disengagement and diminishes students' motivation and interest in learning. This also creates gaps in their understanding of contemporary topics, adversely affecting their preparation for real-world challenges.

Given these limitations, I have opted not to use textbooks throughout my 27-year teaching career, during which I have taught over 3,000 students. Instead, I have consistently relied on my own daily research to craft my lessons. Although this approach is time-consuming and often draining, it has proven highly effective. With the advent of AI generators and ongoing advancements in digital tools, however, the teaching landscape has changed dramatically. These tools now offer unprecedented opportunities to deliver high-quality lessons that not only enhance students' language mastery but also develop their leadership abilities and digital skills. The next section of the article will provide <u>a practical example</u> and lesson plan of how to use digital apps and AI generators in the FLEND class. Volume 9, Issue 12, December – 2024

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Integration of AI generators and Digital tools in the different FLEND stages

Lesson link: <u>https://shorturl.at/SsERc</u> Theme: Speaking in Public Level: B2(a) – Low B2 -

A. The Role of AI for Teachers and Students in the Prelude Stage

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| Activity | Page | Task | AI tool | User (T / Sts) | Rationale |
|---------------|------|------------|------------|---------------------------------------|--|
| Creative | | Watch, | Chatgpt - | The teacher provides specific | This exercise enables students to |
| fluency | | note, and | Bing | words to prompt students to | apply the given vocabulary in their |
| - | | share or | _ | generate as many ideas as possible | speaking tasks, encourages |
| | | Look, | | within a limited time. | spontaneity, and enhances their |
| | | think, and | | | creative abilities. |
| | | speak | | | |
| Vocab | | Vocab in | ChatGpt - | Students, working in groups, are | This exercise builds on earlier |
| Collaborate: | | Mind Map | bing | instructed to develop a mind map | activities, enabling students to |
| Build - Share | | 1 | C | that rephrases the content of the | expand their vocabulary using a |
| | | | | video incorporating idioms and | collaborative platform (Miro) and |
| | | | | collocations. | AI generators. It enhances student |
| | | | | | engagement in vocabulary-building |
| | | | | | while developing both leadership |
| | | | | | and digital skills. |
| Quote / Fact | | Pick – | Bing | Using Bing Copilot, the teacher | This instructional task increases |
| Talk | | Think - | Copilot | selects quotes, facts, and statistics | student engagement in critical |
| | | Speak | • | related to the theme and | thinking through a digital-based |
| | | - | | incorporates them into a Wordwall | activity. Its engaging format aims |
| | | | | game. Using Bing Copilot assists | to improve both speaking skills and |
| | | | | teachers in saving time by quickly | critical thinking. |
| | | | | finding facts that align with the | _ |
| | | | | lesson's objectives. | |
| Data Talk | | Select and | Bing- Chat | Using the collaborative platform, | This AI- and digital tools-based |
| | | share | GPT, | Padlet, students post selected data, | activity, helps students develop the |
| | | | Gemini | which will be utilized in | following key skills: a. being |
| | | | | upcoming activities, including | selective and concise; b. applying |
| | | | | projects. | data appropriately in both writing |
| | | | | | and speaking contexts; c. using |
| | | | | | various AI generators effectively |
| | | | | | and thoughtfully; d. interacting on |
| | | | | | a collaborative platform. |
| Poster Com | | Day 1: | Microsoft | Day 1: The students, working in | This AI and digitally created |
| | | Create & | designer, | groups, use an AI image generator | project helps students develop |
| | | Write | Canva, | (e.g., Canva Image Generator or | digital creativity, critical thinking, |
| | | Day2: | pixlr | Pixlr) to create and provide the | teamwork, social intelligence, and |
| | | Present & | | description they need for their | communication skills. By |
| | | debate | | poster. Then, they collaboratively | integrating these skills, students |
| | | | | write a short essay, incorporating | enhance both their social and |
| | | | | arguments from the Quote Talk | digital abilities in a highly |
| | | | | and Class Data Bank (CDB) to | engaging and entertaining |
| | | | | support their opinion. | environment. |
| | | | | Day2: Individually, students | |
| | | | | present and discuss their digital | |
| | | | | posters at their stands. The | |
| | | | | discussion focuses on the theme | |
| | | | | and the poster design. | |

| Table 1 The Role of AI f | or Teachers and Students | in the Prelude Stage |
|--------------------------|--------------------------|----------------------|
| | | 8 |

B. Customizing Vocabulary and Tailoring Comprehension with AI in the Flipped OCA Stage

In the flipped classroom stage, students complete Outof-Class Activities (OCA), including Fun Time, Preteaching Vocabulary, Comprehension, Smart Questions, and Summary. Unlike textbooks, which provide standardized and limited content, AI generators enable teachers to tailor vocabulary selection based on students' levels, ages, and socio-cultural backgrounds. This personalized vocabulary is then used in customized reading and listening comprehension activities, which are more authentic and updated with the latest data introduced during the Prelude stage. Volume 9, Issue 12, December – 2024

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In listening comprehension activities, the teacher uses the Natural Reader app (a text-to-speech tool) to convert reading passages into audio files, adjusting the playback speed to match the students' proficiency levels. This allows students to work through the material at their own pace, enhancing both their listening comprehension and listening skills, including their ability to listen actively and respond appropriately (Judy Willis, 2018)

C. Enhancing Engagement in the Flipped ICA Stage: Tips for Using AI Generators and Digital Tools

The first in-class AI-based activity is AI SMART Q. Using the <u>Wordwall app</u>, students answer a range of critical thinking questions related to the OCA comprehension passage. These questions assess students' in-depth understanding, fluency, and communication skills. This activity can also be reused in future sessions as a brainstorming tool. One of the key benefits of AI-generated questions is their ability to expose students to various question types, even though they (AI questions) lack creativity and imagination. Following this activity, students will engage in Student SMART Questions (SSQ).

In terms of language feedback and practice, the use of AI generators and digital tools, such as <u>Quizizz</u>, provide teachers with numerous options to create a diverse range of activities tailored to both content and difficulty levels. The selected examples and adapted exercises will align with the planned theme, offering an additional avenue for vocabulary enrichment. This method not only expands students' vocabulary but also enhances their writing and speaking skills.

In critical thinking activities, students collaborate in groups to develop oral presentations that precede roundtable debates. Instead of using Google, which can be time-consuming, we employ <u>Bing Copilot</u>, <u>Consensus</u>, or <u>Heuresti.ca</u>. These tools efficiently direct students to pertinent articles and quotes and assist in creating quick, effective mind maps. For pronunciation checks before presentations, we use <u>Natural Reader</u>, a free text-to-speech app. We also use <u>Pexels</u> or AI <u>MagicStudio</u> to quickly generate images for students to enhance their presentations with visual elements.

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D. Utilizing AI Generators in the BLEND Stage: Strategies for Integrating AI Tools in Production and Group Projects

Most definitions of blended learning agree it is "the thoughtful integration of classroom face-to-face learning experiences with online learning experiences" (Garrison and Kanuka, 2004). Additionally, they assert that there are four models: Rotation, Flex, A La carte, and enriched virtual model (Blended Learning: What It Is, Why It Matters & How to Apply It | LearnWorlds Blog).

However, our Blended model emphasizes the Production-Project Process (PPP). Students follow the instructions below:

| Stages | Online | F2F |
|---------------|---|--|
| Flipped OCA - | Language Exploration: As previously discussed, the | After the SHAC (Khalid & Helaine, 2017) time, |
| ICA | teacher utilizes AI generators to select, personalize, | fluency exercises, and feedback, students are asked |
| | and tailor both vocabulary and grammar. | to complete a range of digital practice activities, |
| | | from basic to advanced. This is followed by short |
| | | writing tasks in which students incorporate the |
| | | acquired vocabulary, as well as quotes and facts |
| | | from the Class Data Bank (CDD). (see prelude) |
| Extended | Students use the data and language rules acquired in | Students have ample time to communicate and |
| Production | class to write extended essays, which they post on | develop skills related to collaboration and critical |
| | Padlet, a collaborative platform. They are then asked | thinking. |
| | to provide feedback on each other's essays. The | |
| | teacher reviews and corrects the essays, offering | |
| | additional recommendations. | |
| Preliminary | Students are assigned to collaboratively develop an | The project begins in class and is then developed |
| Project | oral presentation to enhance critical thinking skills and | online. The teacher's role is mainly to offer |
| | expand their knowledge. They use the Canva platform | guidance, help students with their AI-based |
| | instead of PowerPoint, as it offers a broader range of | research through tools such as Consensus and Bing, |
| | tools and elements for crafting more creative | and support them in refining their thinking and |
| | presentations. | boosting their confidence. |
| Main Project | The project involves applying the SMART strategy to | The project begins in class, where the teacher |
| | propose viable solutions to theme-related issues. | provides instructions and discusses the teams' |
| | Students use Canva along with AI generators to select | suggestions and strategies. After working online, |
| | images and convert data into charts and diagrams. The | students present their projects in class before |
| | project is divided into two distinct phases: a) Problem | converting them into videos or documentaries. |
| | Formulation and b) Problem Solving. (Andella | These are then showcased publicly in what we refer |
| | Bandelli, 2017) | to as Creativity Activities in Public (CAP). |

Table 2 Students Follow the Instructions

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The integration of online tasks and face-to-face (F2F) activities represents two complementary stages: Prepare and Present. Both aspects operate simultaneously to enhance language skills, leadership abilities, and digital literacy.

- ➤ In-class activities focus on:
- *Teacher Guidance*: Delivering instructions and reviewing team strategies.
- *Primary Task Completion*: Encouraging student engagement through guidance, stimulating curiosity with questions, enhancing confidence in peer interactions, and supporting slower learners.
- *Socializing and Fun*: Fostering social interaction and developing friendships within an engaging and entertaining atmosphere.
- > The online class helps students develop:
- *Teamwork:* Collaboratively completing projects, including writing essays and providing feedback on each other's posts.
- *Critical Thinking:* Analyzing, evaluating, and sharing diverse ideas.
- *Creativity:* Using various apps, students showcase their skills by creating high-quality, professional-style projects.

Equally important, this approach sets a strong foundation for more detailed asynchronous projects that students will showcase in their STUDCONS (student conferences). Concerning AI and digital tools, students will:

- Refine their skills in conducting prompt research.
- Identify and select the most effective and economical AI generators.
- Acquire proficiency in utilizing AI generators and digital tools.
- Engage in collaboration and exchange best practices for app usage.

IV. CONCLUSION

In today's rapidly changing world, "our current education system, built on the Industrial Revolution model, focuses on IQ, in particular memorization and standardization - skills that will be easily and efficiently supplanted by artificial and augmented intelligence (AI), where IQ alone isn't sufficient." (Karthik Krishnan, 2020). "The departure from predicated skillsets ideal for an industrial construct, and the shift to creativity, innovation, entrepreneurship, and non-cognitive skills is proving to be more apt and desirable for 21st Century life opportunities." (Education World, 2019). The FLEND methodology is one of many innovative approaches designed to help educators prepare students for an increasingly challenging world. Now, more than ever, students must be equipped with the essential tools not only to survive but to thrive. This requires mastering the language of the modern era-English-, developing leadership skills that empower them to transition from average contributors to impactful decision-makers, and embracing the possibilities offered by AI and IT. FLEND methodology aims to cohesively integrate various skills

throughout the different stages of the lesson. Starting with Prelude for an expanded lesson background, it progresses through Flip and Blend stages, which develop concurrently before culminating in the Project level. This final stage involves showcasing student work both in class and publicly. The objective is to foster active influencers rather than passive learners, regardless of their age.

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APPENDIX

- https://highupacademy.com/
- Lesson link: https://shorturl.at/SsERc
- https://tactiq.io/tools/youtube-transcript
- https://pixlr.com/image-generator/
- https://www.canva.com/
- https://designer.microsoft.com/image-creator
- https://www.craiyon.com/
- https://www.qr-code-generator.com/
- Mind Map: https://miro.com/app/
- Wordwall game: https://wordwall.net/resource/74280365/public-speakingfact-talk
- https://www.naturalreaders.com/
- https://www.pexels.com/
- https://quizizz.com/
- https://www.bing.com/
- https://consensus.app/search/
- https://www.heuristi.ca/
- https://magicstudio.com/ai-art-generator/

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