Navigating the GenAI
transformation into higher
education: opportunities and
challenges

Prof. Gila Kurtz, Dean, HIT, Israel





## **Outline**

I want to tell you...

2 Share our work

**Our insights** 





## I want to tell you what I think about Gen AI

GenAI=US

It is a reflection of humanity of all times

GenAI=US - all of us!



**GenAI=US** 

It is a reflection of humanity of all times

GenAI=US - all of us!

## **GenAI= US**

## A shift!

While we used to adjust to technology, it now adjusts to us

## GenAI = US

We are building something from scratch

For a better:

world,

education

for a better us

# It's up to us!

# Al at Work Is Here. Now Comes the Hard Part

Employees want AI, leaders are looking for a path forward.

#### **Explore the Findings**

1: Employees want Al at work—and they won't wait for companies to catch up.

2: For employees, Al raises the bar and breaks the career ceiling.

The rise of the Al power user—and what they reveal about the future.



SHARE in f y @

August 2023

# Future of Work Report

Al at Work

Linked in

70%

55% of LinkedIn members globally stand to see their jobs change to some degree by the rise of generative AI. 74%

Conversations around AI on LinkedIn have increased globally by 70% between December 2022 and September 2023.

55%

74% of US executives believe that GAI will benefit their employees.





ARTIFICIAL INTELLIGENCE

## From Sam Altman to António Guterres: Here's what 10 leaders said about Al at Davos 2024

Jan 23, 2024



Fear



## Our position:

3

1 ALMA Model (AI - LearnMate)

2 Responsible Innovation

**Keeping humans in the loop** 



## Who are we:

The Faculty of Instructional Technologies teaches and trains professionals aspiring to design, develop, and lead technological solutions aimed at learning and training.

Our efforts are focused on various types of organizations associated as corporates as well as with the public sector.



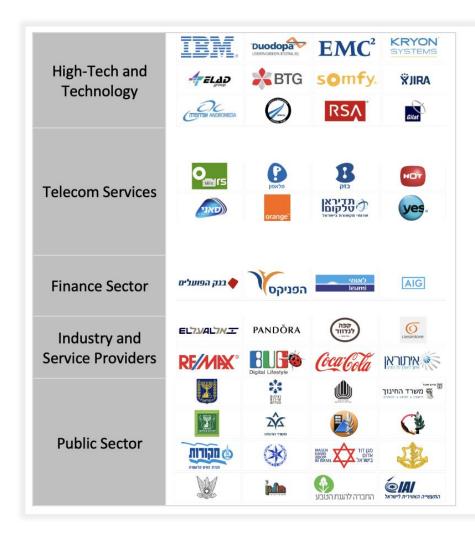
# **Conceptualize! Design! and Develop!**







## **Collaborations!**





#### יומן עבודה ב chatgpt סמינר, תואר שני סמסטר א' תשפג

#### שרון וליפז:

אנחנו אספנו רשימה של מקורות מידע לסקירת הספרות שלנו וחילקנו את המקורות מידע לפי נושאי הפרקים בסקירה. השימוש הראשון שלנו ב GPT CHAT היה לבקש ממנו לכתוב לנו פרק לסקירת ספרות על בסיס המאמרים הרלוונטיים לפרק.

הבקשה שנכתבה מצידנו לצ'אט:

Ι

write me a literature review episode about VBL based on the following articles including apa
References:

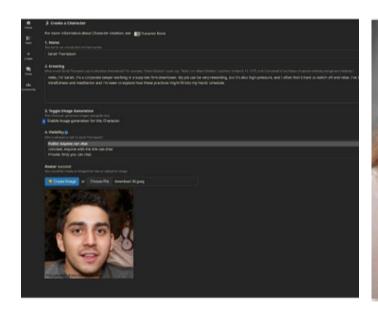
- 1. Beheshti, M., Taspolat, A., Kaya, O. S., & Sapanca, H. F. (2018). Characteristics of instructional videos. World Journal on Educational Technology: Current Issues, 10(1), 61-69.
- 2.Citriadin, Y. (2022). Pros and Cons of Video for Learning Interest in Online Learning Amid Pandemic Covid-19 in University. AL-ISHLAH: Jurnal Pendidikan, 14(1), 335-342.
- 3. Yousef, A. M. F., Chatti, M. A., & Schroeder, U. (2014). The state of video-based learning: A review and future perspectives. International Journal on Advances in Life Sciences, 6(3), 122-135.
- 4.Sablić, M., Mirosavljević, A., & Škugor, A. (2021). Video-based learning (VBL)—past, present and future: An overview of the research published from 2008 to 2019. Technology, Knowledge and Learning, 26(4), 1061-1077.

# Co-learning with students

Usage Diary

**LINK** 

## GenAI curriculum redefined: Students as teachers





### **Gila Kurtz & Oren Ben- Aharon**

A team of outstanding graduate students developed a GenAI-based educational layer integrated into the existing undergraduate curriculum

## **Ethical Code**

https://facultyprojects.telem-hit.net/AiInsperationProtocol/

#### הנחיות לשימוש בכלי בינה מלאכותית בלמידה בפקולטה לטכנולוגיות למידה 2023

#### רקע

אנו בעיצומה של מהפכה טכנולוגית בתחום של הבינה המלאכותית – לאחרונה הונגשו לציבור כלים מבוססי טכנולוגיה זו, לרבות: ChatGPT, Jasper, Elicit, DALL·E 2. בעקבות כך חלה עליה משמעותית בהזדמנויות ובאתגרים הטמונים בתחום הבינה המלאכותית ובפרט לעולם האקדמיה ולתהליך הלימוד והיצירה שצפוי לשנות את פניו מהיסוד.

הפקולטה לטכנולוגיות למידה מעודדת חקר ושימוש בכלים חדשניים תוך הפעלת שיקול דעת והערכה ביקורתית-מיומנות חיונית בהכשרת הסטודנטים כבוגרים לתעשייה.

#### מטרות

- לאפשר לסטודנטים שימוש מושכל בכלים מבוססי AI, תוך שמירה וטיפוח ערכים, יצירתיות ומצוינות אקדמית, הכוללים למידה ומחקר המשלבים שקיפות ושימוש ביקורתי
- להציע לסטודנטים תהליך למידה המאפשר למצות את הפוטנציאל של כלים מבוססי AI
   במהלך עיסוקיהם כסטודנטים.

#### הנחיות ביצוע

לכל עבודה/תוצר/פרויקט שמוגש במסגרת לימודיכם בפקולטה ושבמסגרת ההנחיות חלה חובה לכלול תיעוד והצהרה על שימוש בכלי בינה מלאכותית, עליכם לפרט כיצד השתמשתם בכלים אלה כנספח לעבודה/תוצר/פרויקט "תיאור ותיעוד שימוש בכלי AI":

ציינו באיזה כלים השתמשתם ואת מטרת השימוש בהם והסבירו כיצד השתמשתם בהם: תארו בקצרה לכל כלי כיצד השימוש סייע לתהליך היצירה/בתיבה/חשיבה/עיצוב התוצר -שלבו דוגמאות וצילומי מסך במידת הצורך .

- פרטו את אבני הדרך העיקריות כולל תיעוד prompts עיקריים בתהליך.
  - ציינו את ה prompt האחרון שדרבו הגעתם לתוצר הסופי.
  - מוזמנים להתייעץ עם סגל הקורס בנוגע לשילוב תוצאות מתוך כלי AI.

# Implementing in courses

https://www.hit.ac.il/telem/B.A/curriculum/technology

#### אשכול טכנולוגיה



### אשכול טכנולוגיה - פיתוח טכנולוגי מועצם Al

#### ראש אשכול: ד"ר דן כהן-וקס

האשכול הטכנולוגי הוא אחד משלושת תחומי הדעת הנלמדים בפקולטה לטכנולוגיות למידה. הלמידה באשכול מבוססים על רכישת יכולות פיתוח באמצעות טכנולוגיות מגוונות מועצמות ביכולות בינה מלאכותית (AI). האשכול מקנה ידע יישומי למגוון סביבות לרבות Full-Stack Web, סביבות למגוון סביבות לימוד המקצועות שבאשכול מתבצע בגישה בין-תחומית ,פיתוח מחשוב מוחשי (IoT) רובוטים חברתיים. לימוד המקצועות שבאשכול מתבצע בגישה בין-תחומית שכוללת פיתוח של סביבות וכלים חדשניים המותאמים להתמודדות עם אתגרים אותנטיים מעולמות הלמידה וההדרכה.

### ?איך זה בא לידי ביטוי

האשכול הטכנולוגי מכנס תחתיו את מקצועות הלימוד שנועדו להכשיר סטודנטים וסטודנטיות לפיתוח מערכות וסביבות הדרכה ולמידה עתירות טכנולוגיה. במהלך הלימודים, עוברים הסטודנטים והסטודנטיות הכשרה מקיפה במקצועות הפיתוח הטכנולוגי הרלוונטיות לעידן ה-AI. ההכשרה כוללת מגוון תחומים, לרבות חשיבה חישובית, פיתוח מסדי נתונים, פיתוח קוד במגוון שפות וכלים העדכניים ביותר. הלימוד מתבצע בגישה מעשית מבוססת פרויקטים שמתכתבים עם אתגרים אותנטיים מתוך עולמות הלמידה וההדרכה.

בסיום הלימודים, ידעו הסטודנטים והסטודנטיות לנתח ולאפיין צרכים טכנולוגיים, כמו גם לפתח מערכות וסביבות עתירות טכנולוגיה חדשנית במטרה להעצים תהליכי למידה והדרכה.

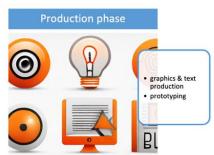
# "Media and manipulation in an age of synthetic reality: Implications for education and critical media-literacy"





## Fostering Learning of "GenAI-Augmented Designers" for enhancing Instructional Technologies



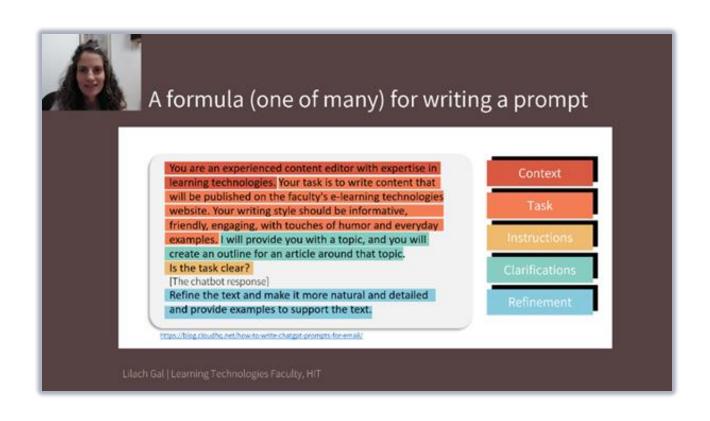




### **Nohar Raz-Fogel & Dan Kohen-Vacs**

Transformations in design- courses,
elucidating changes resulting from GenAI
integration into the undergraduate
program's core components

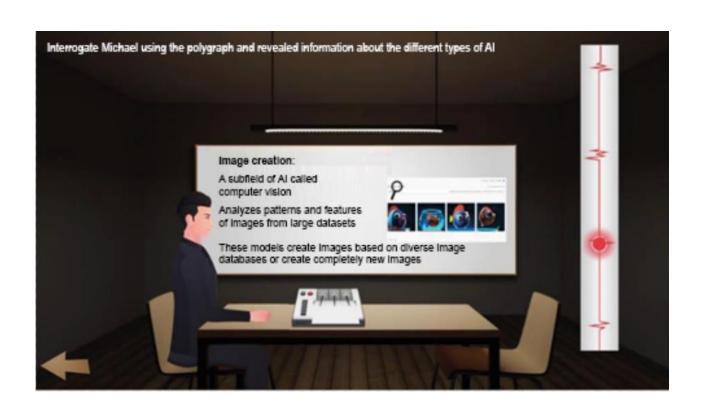
# Information Literacy in the Internet Environment Asynchronous Collaborative Learning



### **Lilach Gal**

This task cultivates their ability to think critically about the implications of prompts in their academic studies

## **Reshaping Academic Literacy with GenAI Applications**



### Noga Reznik & Moti Elnekave

A gamified - based learning activity
aimed at introducing fundamental
principles of Generative AI to students
without prior expertise in the field





#### @gilakurtz

Dean of instructional Technology Faculty, HIT, Israel

#### **GETTING READY WITH YOUR RESEARCH**

perplexity - ask a question and get an answer

elicit - locate papers on research topic



SciSpace - locate papers on research topics



Consensus - locate papers on research topic



ResearchRabbit - search and connect between articles in a visual way

https://linktr.ee/gilakurtz

### An innovative and unique academic specialization track for M.A Students in the Faculty of Instructional Technologies at HIT



https://www.hit.ac.il/en/news/news-and-stories/08-06-2023-1250





Article

### Strategies for Integrating Generative AI into Higher Education: Navigating Challenges and Leveraging Opportunities

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Abstract: The recent emergence of generative AI (GenAI) tools such as ChatGPT, Midjourney, and Gemini have introduced revolutionary capabilities that are predicted to transform numerous facets of society fundamentally. In higher education (HE), the advent of GenAI presents a pivotal moment that may profoundly alter learning and teaching practices in aspects such as inaccuracy, bias, overreliance on technology and algorithms, and limited access to educational AI resources that require in-depth investigation. To evaluate the implications of adopting GenAI in HE, a team of academics and field experts have co-authored this paper, which analyzes the potential for the responsible integration of GenAI into HE and provides recommendations about this integration. This paper recommends strategies for integrating GenAI into HE to create the following positive outcomes: raise awareness about disruptive change, train faculty, change teaching and assessment practices, partner with students, impart AI learning literacies, bridge the digital divide, and conduct applied research. Finally, we propose four preliminary scale levels of a GenAI adoption for faculty. At each level, we suggest courses of action to facilitate progress to the next stage in the adoption of GenAI. This study offers a valuable set of recommendations to decision-makers and faculty, enabling them to prepare for the responsible and judicious integration of GenAI into HE.

Keywords: higher education (HE); generative AI (GenAI); Generative AI; academic teaching



Citation: Kurtz, G.; Amzalag, M.; Shaked, N.; Zaguri, Y.; Kohen-Vacs, D.; Gal, E.; Zailer, G.; Barak-Medina, E. Strategies for Integrating Generative AI into Higher Education: Navigating Challenges and Leveraging

#### Generative Artificial Intelligence in Higher Education:

#### Uses, Perceptions, and Ethical Dilemmas of Students

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#### Abstract

Generative AI (GenAI) tools such as ChatGPT have recently gained significant attention in higher education. This article reports on a pilot study (n=289) and a nationwide case study (673) of Israeli students' views on using GenAI for learning purposes, their perceptions, and ethical dilemmas. Data were collected using online questionnaires. Findings from the pilot study and the national case study showed that GenAI applications, in general, and ChatGPT, in particular, have become integral to students' academic study routines. Students reported positive uses of ChatGPT. including as a personal tutor, as an instrumental tool that enabled the search for academic information, and as an inspiration source. However, the analysis of the findings also revealed negative uses of ChatGPT, mainly to have the AI complete assignments for the students. Most students were aware of the ethical aspects of using GenAI for learning purposes and expressed the urgent need for guidance, especially on the consequences of being caught. The research findings also indicated an urgent need to impart learning literacies adapted to this new era-in other words, students must be given knowledge, qualifications, and skills for informed and critical navigation in the GenAI space. Finally, students must also be taught ethical thinking and academic integrity as integral to the curriculum. This research aims to deepen our understanding of this fast-evolving landscape and inform the challenges of supporting students to engage critically and effectively with GenAI tools in their academic learning.

Keywords: artificial intelligence (AI), generative AI (GenAI), higher education, university students, AI ethics

### Are you ready for GenAl usage in HE?

Students' readiness to adopt Generative Artificial Intelligence (GenAI) in their learning and ethical considerations:

An international comparative study

#### Dear participant,

The disruptive and increasing use of Artificial Intelligence (AI) – particularly Generative Artificial Intelligence (GenAI) like ChatGPT, Midjourney, Bard, and others in our daily lives – is changing our thinking and working habits. These changes are especially impacting higher education. We are an international team of researchers interested in learning about your attitudes toward integrating GenAI tools and applications in your academic learning.

GenAl applications offer a natural conversation between humans and machines that allows the machine to, among other things, answer questions intelligently and eloquently, offer critiques of texts and ideas, draw conclusions, and plan complex programs. The intelligent capabilities of GenAl applications, such as ChatGPT, and their ease of use allow many opportunities for learning and diverse uses with great pedagogical potential

We would appreciate it if you took a few moments (around 10 minutes) to answer the following survey. Your engagement is important and will allow us to understand GenAl's contribution to academic learning better.

This survey is completely anonymous. Your participation in this study and any information you provide will be deidentified and treated in a confidential manner. Information from this project will be published, but your name and identifying details will not be used in any publication arising out of the research. The collected data will be kept in a non-identifiable format in a password-protected computer.

The Ethics Committee of Swansea University has approved this questionnaire.

Thank you in advance for your participation!

The Research Team

## **Key implications of integrating GenAI into HE**

## 1. learning & teaching



**Shortening time** 



**Personalization** 



"A buddy to study with"-Personal agent

## **Key implications of integrating GenAI into HE**

## 2. learning skills







**Creativity** 



**Critical Thinking** 

## **Key implications of integrating GenAI into HE**

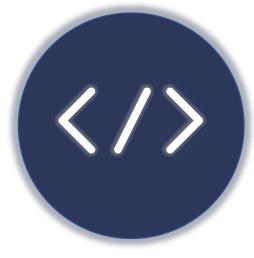
## 3. Ethics



Accessibility to all (?)



**Data protection and privacy** 



**Algorithmic bias** 

## Main takeaways:

- Awareness of the disruptive change this is not hype!
- Hybrid intelligence
- A historical opportunity for academy
- Changing teaching and assessment practices
- AI literacies
- Training faculty & students

Applied research is needed!



# And at the end of day...

What is learning? What is teaching?



# Learning is... change Not strengthening the existing and known

# NETFLIX



# To learn how to learn



To teach

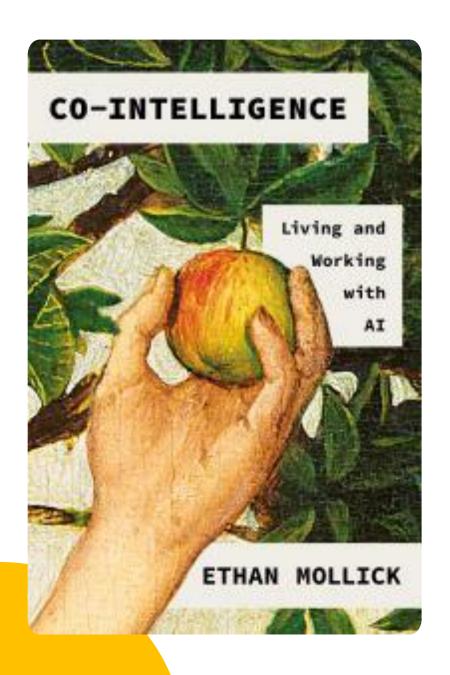
'how to think'

and not

'what to think'



Let the students ask the questions and also... look for the answers



# 4 rules for Co-intelligence

- Principle 1: Always invite AI to the table
- Principle 2: Be the human in the loop
- Principle 3: Treat AI like a person (but tell it what kind of a person it is)
- Principle 4: Assume this is the worst AI you will ever use



Prof. Gila Kurtz | 2024

