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TechTalk: The Authors (Drs. Karl Wöber and Daniel Fesenmaier) of "AI, ChatGPT and the university" in the Annals of Tourism Research

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Interview at a glance

"Today's technology including AI-based systems referred to as 'generative AI' has been received with many warnings, and indeed, many universities worldwide are banning or at least limiting their use. While AI has been around for many years, it appears that we now have reached the 'tipping point' wherein researchers have realized the requirements for building truly 'intelligent' systems. ChatGPT is one AI system that has attracted a lot of attention; however, many others exist today, and others are expected to be made public within the next couple of years. ~text-based (such as essays, poems, and computer programs) or graphic-based (such as art or animated humans). Importantly, it is believed that these systems can evolve (i.e., learn) independently, and as such, have the ability to 'think' creatively" (Fesenmaier & Wöber, 2023, p. 2).

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1. First Impression about ChatGPT

1.1 Wöber

My first impression of ChatGPT was that it resembled an automated Wikipedia, offering instant responses—an intriguing tool with the potential to revolutionize education. I promptly contacted the secretary of the minister for education in Austria, proposing a working probe involving representatives from Austrian universities. Despite her initial unfamiliarity with ChatGPT, she later acknowledged its significance and expressed interest in discussing its implications in the following year. This affirmed the tool's potential impact on education.

1.2 Fesenmaier

My first impression of the potential of using Chat in programming occurred during a student event. At the time, my son was employed at Dropbox, and during our conversation, he enthusiastically shared, "Dad, the fascinating aspect of programming with Chat is that I can collaboratively troubleshoot issues and create extensive programming tools by engaging in iterative dialogues." He elaborated on how he could identify coding problems through back-and-forth discussions and promptly address them. He expressed excitement about the applicability of this approach, not only in his work but also in his Master's classes at Penn State University. Over the following two weeks, we delved into extensive discussions exploring the possibilities of incorporating this innovative method into various educational contexts. As my son developed programs using this approach, he observed a distinctive shift in logical thinking compared to his traditional programming methods. This realization prompted me to highlight the unique learning potential inherent in diverging from conventional programming logic. In preparation for documenting our experiences, I invested several hours engaging in conversations, posing inquiries, and investigating potential challenges associated with this approach. Subsequently, I eagerly approached Dr. Wöber, initially met with skepticism. It took me a few months to transition from initially perceiving it as a seemingly impractical idea to recognizing its substantial value. The journey from skepticism to genuine enthusiasm revealed exciting opportunities for our students to acquire knowledge and advance in ways previously inconceivable within the confines of a traditional classroom setting.

2. Technological Advancements that Impacted the Most on Our Live

2.1 Fesenmaier

When the internet emerged, Dr. Wöber was a visiting professor at the University of Illinois, and conversations abound about envisioning the potential impact of this groundbreaking technology. In my view, what is now labeled as AI represents the fruition of ideas conceived three decades ago. While considerable changes have occurred, the foundational concepts envisioned in the literature from that era have essentially materialized today. The evolution of technology and the establishment of comprehensive systems have been necessary to bring to life the visionary ideas from 30 years ago. In essence, there is a continuity rather than novelty in these developments. Many assert that contemporary advancements have completely transformed our landscape, but, from my standpoint, the seeds of change were sown in the early 1990's, when Dr. Wöber arrived in Illinois. The initial contemplations about the internet's potential have taken this extended period to mature and fully manifest.

2.2 Wöber

The impact of technologies like ChatGPT on society is multifaceted and depends on various factors. A detailed examination is crucial. Anticipated changes include increased efficiency and speed in certain work processes. Additionally, the nature of work is expected to shift, with a greater emphasis on creativity and innovation. ChatGPT, as a fundamental tool, will undergo dramatic transformations. This is particularly significant for smaller institutions like Modul University, which faces limitations in accessing extensive library resources. The advent of ChatGPT presents a notable advantage, granting students access to knowledge that was previously beyond reach. This positive development, while beneficial, will inevitably reshape the working dynamics within educational institutions and beyond.

2.3 Fesenmaier

In the 1980s and 1990s, amidst predictions of radical change, fundamental questions in humanities persist, coexisting with modern technologies like ChatGPT. While certain aspects endure, the advent of information technology (IT), akin to the internet or social media, fuels creativity, fostering a surge in innovation. This democratization of creativity extends beyond engineering, empowering individuals across disciplines to develop programs that contribute to innovation, even at a non-professional skill level. However, this proliferation of creativity coexists with challenges such as disinformation and unethical practices enabled by bad actors. In discussing creativity and innovation, it is crucial to recognize the underlying mechanics of AI, particularly ChatGPT, built on neural nets analyzing current and past information. ChatGPT's temporal constraints, excluding information older than 10 years, result in the reproduction of existing knowledge, raising concerns about perpetuating the status quo. It is important to steer students away from providing the status quo and instead encourage innovative thinking, challenging them to leverage the information at hand for specific goals, case studies, or scenarios. While positive about the potential of ChatGPT, at the same time, it draws attention to plagiarism concerns, asserting that asking ChatGPT to summarize information is akin to the traditional practice of summarizing articles. However, the introduction of ChatGPT prompts the need for well-crafted questions, and we have to appreciate how the technology encourages thoughtful inquiry, pushing students to think more deeply about their queries. The limitations of ChatGPT in language cheating, easily detectable by the discerning eye, compel students to approach questions with greater consideration, fostering a creative and strategic approach to problem-solving and leveraging the vast information accessible through the tool.

3. Potential Challenges of AI for Future Generations

3.1 Fesenmaier

My son tested ChatGPT during one of his master's classes at Penn State. Despite the computer recognizing it as a Chat program, he manipulated a few words, reducing the computer's detection to just three percent. While the temptation to cheat tests exists, the emphasis should be on encouraging students to critically evaluate information. I illustrated this to my son, emphasizing the need to discern between accurate information and potential hallucinations. In an experiment, ChatGPT generated three fictitious articles with impressive titles, mimicking reputable journals. If a student presents such content without due diligence, it indicates a lack of thoughtfulness, leading to a failing grade after verification.

4. Role of Universities and the Significance of Logical Thinking in the AI Era

4.1 Wöber

One aspect we haven't delved into is that we're just at the onset of AI development, particularly in textual manipulation and creation. This domain is poised for optimization and improvement in the coming years. I firmly believe that the true potential of this evolving text processing, extending to arts, visuals, and programs, is still emerging. We stand at the cusp of a revolution that will unfold in the next few years, prompting us to anticipate its impacts. As Dr. Fesenmaier highlighted earlier, the focus of our work and, consequently, student work, is bound to evolve. While this change may not be immediate, in the medium to long term, it will become increasingly vital to nurture students' curiosity. Retrieving information from tools like ChatGPT is not a passive process; curiosity is a driving force. The interaction and engagement of students with such tools will be key to gaining insights and experiencing moments of discovery, learning, and novelty. Merely viewing these tools as aids for putting words on paper won't suffice, as future universities will demand a more interactive and curiosity-driven approach. This interactive, curiosity-fueled engagement with tools like GPT will reshape the traditional classroom setting. We may witness a shift where lectures become collaborative explorations, with educators guiding students through certain fields, inspiring new perspectives rather than providing answers to everything. Consequently, the way we teach and learn is poised to undergo significant transformation, impacting everyone involved.

4.2 Fesenmaier

The advent of chat platforms has triggered a widespread awareness of the monetary potential within this domain. Individuals and knowledge sources are increasingly seeking financial gain, making access to what we might term the "public domain of knowledge" highly challenging. A case in point is my proposal to collaborate with the Annals and its publisher to create a specialized chat for tourism, utilizing the last 10 or 20 years of articles. The response was expected; they are focused on monetizing and controlling access, a trend observed across various domains. Simultaneously, there is a recent release of non-chat AI tools by both OpenAI and Meta, catering to public demand. These tools empower users to generate complex AI systems, yet the broader population often lacks the awareness of how to leverage these tools effectively. This landscape has given rise to a small universe of knowledge and understanding that was inaccessible just three years ago, representing a significant shift in accessibility and utilization of advanced technologies.

4.3 Wöber Customer is Giving the Other

In the future, envision a straightforward scenario: classrooms equipped with a ChatGPT avatar, an interactive presence tuned into student-lecturer conversations. This avatar could seamlessly contribute supplementary information or intervene in discussions, providing corrections or introducing previously unexplored ideas. This concept, resembling a participatory member in the classroom, is not far-fetched and holds the potential to significantly enhance the educational experience.

5. Expected Learning Outcomes and Assessment Criteria from Utilizing ChatGPT

5.1 Wöber

The contribution to innovation, creativity, and effective utilization of tools must align with demonstrating proficiency in correct referencing and quoting. Transparency and adherence to ethical standards are pivotal considerations. However, the primary emphasis lies in how individuals organize their work. Particularly in the social sciences, evaluating the implementation of surveys, understanding the chosen methodology and technology, and the ability to defend these choices becomes paramount. Students need to showcase critical thinking skills and defend the research outcomes. This shift places greater importance on metrics beyond paper submission, reflecting a broader evaluation of research processes. Additionally, it is anticipated that the future may bring changes to the conventional approach of writing articles.

6. Exploring and Linking Theories in Tourism: ChatGPT vs. Google Bard, and Human Perspectives

6.1 Wöber

This example illustrates the evolving landscape of possibilities and significance for the future. The ongoing competition among AI tools initiates a plethora of questions and presents intriguing opportunities. Essential to this process is instilling in students the ability to critically assess the outcomes of these tools, engage in comparisons, draw their conclusions, and adeptly defend their findings. As emphasized earlier, this critical thinking and analytical capability will be vital for navigating the dynamic landscape of AI tool competition.

6.2 Fesenmaier

In assessing the five theories presented by ChatGPT, I would identify and acknowledge the top two or three as credible and valuable. However, my approach would be to dismiss the rest, considering them derived from what I would deem as "hallucinations." Taking, for instance, Dick Butler's theory, which is highly cited, I would prioritize quality over sheer citation numbers. If a student queries ChatGPT and receives an answer that seems dubious, my response would be to give them a failing grade. This approach underscores the importance of fostering critical thinking skills and discouraging reliance on potentially unreliable or unoriginal sources, especially in understanding consumer and tourist behaviors.

7. Conclusion

Since ChatGPT was introduced to the public, there's been a significant shift in how we discuss the evolution of AI technology for real-time interactive conversations. While it has captured people's attention, it has also raised concerns. A prevalent viewpoint is that individuals might overly rely on ChatGPT, hindering independent thinking. Specifically, there's worry that information from ChatGPT could lead to students depending on it for assignments or exams, causing issues. Educators dealing directly with this situation are debating ways to overcome and establish preventive measures. Additionally, programming tools are being developed to identify ChatGPT usage in responses, with related guidelines emerging.

In the realm of this new digital innovation, there is a mix of favorable and critical opinions. Notably, Dr. Wöber and Dr. Fesenmaier recently published "AI, ChatGPT, and the University," providing numerous insights. In this TechTalk based on Annals of Tourism Research content, the professors offered thorough insights through thoughtful questions. Throughout the interview, both consistently conveyed positive messages about ChatGPT. The crucial point is not merely accepting technological advancement but efficiently utilizing our technology to advance this academic field.

Concerns exist about people blindly relying on ChatGPT and losing independent thought. However, the professors emphasize the importance of actively leveraging ChatGPT. They discuss the

significance of continuous interaction, asking good questions, obtaining quality answers, and fostering individual creativity. Additionally, they argue for actively using such technology in educational institutions, like universities, instead of rejecting it.

While discussions continue with ChatGPT's development, this paradigm shift is just the beginning. Over the past 40 years, we've witnessed various technological revolutions, from PCs to smartphones, social media, and now ChatGPT. Ongoing advancements in AI continue at a rapid pace. The impact of ChatGPT serves as a cornerstone, paving the way for innovations beyond our current imagination. Education institutions actively embracing this trend are likely to emerge as leaders in nurturing future talents.

Declaration of competing interests

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Interviewee Biography

Author Biographies

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