

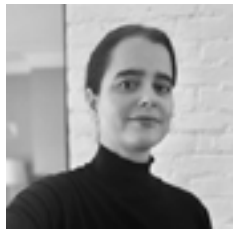
對話世界頂尖學者

The role of emotions in media use: Innovative methods for capturing emotional responses

Discussants: Dr. Karolien Poels, Dr. Yi-Lun Jheng

Editor: Dr. Yi-Lun Jheng¹

Time: April 22, 2025



Dr. Karolien Poels



Dr. Yi-Lun Jheng

Abstract

This dialogue explores the evolving field of emotion research in media use, with Dr. Karolien Poels sharing her research journey and a recent project focusing on boredom as a key emotion driving smartphone use. Drawing on Dr. Lisa Feldman Barrett's theory of constructed emotion, Dr. Poels reflects on the complex relationship between emotions and media behavior. As media technology rapidly advances, the conversation also discusses the

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impact of AI-driven media on emotional responses and engagement. More importantly, Dr. Poels highlights key advancements in emotion measurement, including wearable devices and experience sampling methods, which allow for more ambulatory and ecological emotion tracking, particularly in the context of social media. These innovations are shaping the future of emotion research in media psychology. Finally, Dr. Poels offers valuable advice to early-career scholars, encouraging them to seek out supportive research environments that foster growth and exploration in this rapidly developing field.

Introduction to Dr. Karolien Poels

Karolien Poels (1978) is a full professor of Strategic Communication and Persuasive Technologies at the Department of Communication Studies, University of Antwerp, Belgium and member of the research group MIOS (Media & ICT in Organizations & Society). Karolien Poels is one of the founders and directors of the Antwerp Social Lab which focuses on psychophysiological and behavioral methods that capture human interactions in interpersonal and mediated contexts.

Karolien's research focuses on the strategic communication of complex societal challenges that are (partly) shaped within social media and other technology mediated environments. The role of emotions and how they interact with cognitive processes and behavior is central to her research, both at the theoretical and methodological level. Throughout the years Karolien published in top journals in her core research domains: persuasive communication (*Journal of Advertising*, *International Journal of Advertising*, *Journal of Advertising Research*), media psychology (*Media Psychology*, *Journal of Media Psychology*), new media and technology (*New Media & Society*, *Cyberpsychology*, *Behavior and Social Networking*, *Computers in Human Behavior*, *Telematics & Informatics*) and health communication (*Journal of Health Communication*, *Health Communication*), as well as more generic social science/psychology top-journals (*Scientific Reports*, *Personality and Social Psychology Review*) and medical journals (*Vaccine*, *PloS Neglected Tropical Diseases*).

Throughout her career Karolien invested a lot in external service to the broader scientific field. From 2013-2018 Karolien Poels was selected as a member of the Young Academy of Flanders, where she volunteered to be a board member, responsible for the area of science communication. From 2020-2023, Karolien Poels served as the president of NeFCA (the Netherlands-Flanders Communication Association): <https://nefca.eu>, the leading academic organization of communication scholars in the Netherlands and Flanders with 500 members. From June 2024 onwards, Karolien was elected to take up the role as international liaison for the Communication Science and Biology division of the International Communication Association.

KP: Karolien Poels

YLJ: Yi-Lun Jheng

YLJ : What initially sparked your interest in studying emotions in the context of media use? Was there a particular moment or experience that drew you into this line of research?

KP : It actually goes back quite a long way, to when I was still a master's student. One of the first courses we took was on persuasive communication, focusing on the basic models, like dual-process models and similar frameworks. That's when I was first introduced to the idea that human behavior isn't always rational and that people can be influenced by very subtle cues. I learned that how people feel about something can significantly shape their behavior and how they can be persuaded. It was during that time that I became really interested in the role of emotions. Although my master's thesis wasn't specifically about emotions, after graduating and starting work as a research and teaching assistant, I began reading more deeply into the topic. The more I read, the more intrigued I became, and that's ultimately how my PhD research started to take shape. I was starting my PhD research on emotions in advertising. At that time, there were groundbreaking studies from neuroscientists working on the topic of emotions, such as Antonio Damasio² and Joseph LeDoux³. They discovered that people actually cannot live or act what we would label as "rational" without emotions, showing that emotions are deeply intertwined with behavior, especially when acting for one's well-being or the greater good. Their work was fascinating, and I tried to integrate those insights into my research on advertising during my PhD in the early 2000s. Advertising was my focus because my promoter specialized in that area, and I was really captivated by the world of advertising and trying to persuade people. I wanted to inject a solid view on emotions in that domain.

Later, as I was looking for a postdoctoral position, I came across a vacancy at Eindhoven University of Technology that focused on emotions experienced by

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2. António Damásio (1994) Descartes' Error: Emotion, Reason and the Human Brain. https://www.goodreads.com/book/show/103867.Descartes_Error
 3. Joseph E. LeDoux (1996) The Emotional Brain: The Mysterious Underpinnings of Emotional Life: https://www.goodreads.com/book/show/780672.The_Emotional_Brain

players of video games. It immediately caught my attention because I had been studying emotions, and games were becoming an emerging research topic in communication science. What excited me even more was the opportunity to move from using only questionnaires and surveys to measure emotions, which I had relied on during my PhD in a traditional social sciences faculty, to working in a real lab setting. At the game experience lab at Eindhoven University of Technology, they had a fully equipped lab with tools to measure EDA, heart rate monitors, and facial EMG, and I had the chance to work with psychologists and engineers who were experienced in using these more direct methods of measuring emotions. I had published an overview piece on different ways of measuring emotions in the *Journal of Advertising Research* (Poels & Dewitte, 2006), so it felt like a perfect fit. After spending over two years there, a vacancy focused on strategic communication opened at the University of Antwerp in a group, and I was lucky to be selected as an assistant professor. MIOS, the research group I joined was working on important societal issues like cyberbullying, and I was able to combine my background in persuasive communication and emotions with this expertise. Together, we started new projects, integrating our different strengths. Over time, my focus shifted more towards strategic communication on complex societal issues, still applying my knowledge of emotions and persuasion. Over time, I also worked on building a lab space at the University of Antwerp. I began collaborating with colleagues from educational and training sciences, who shared similar interests, although they focused more on eye-tracking research. This ongoing collaboration reflects how my research evolves constantly.

YLJ : Thank you for sharing your research trajectory. You have had a fascinating career path, starting in advertising, moving into digital games and emotions, and then into strategic communication around complex societal issues. In one of your more recent projects, you have focused on boredom and smartphone use. Could you tell us more about this project? What drew you to boredom as a

research topic? Boredom is often perceived as a “low-stakes” emotion compared to emotions like anger. What made you see it as important and worth exploring?

KP : The boredom project has been a very interesting process. Heidi Vandebosch and I were asked to write a chapter for the Oxford Handbook of Entertainment Theory⁴ (edited by Peter Vorderer and Christoph Klimmt), focusing on two negative emotions, anger and boredom, and how they relate to media use for emotion regulation (Vandebosch & Poels, 2021). We wanted to explore what happens when people experience anger or boredom: how they turn to media to change those emotional states, and what types of media they use. As I started reading about boredom, I became fascinated by how central it is to daily life and media use. Many people intuitively link their phone use, streaming habits, or social media scrolling to moments of boredom—when waiting for a bus or train, sitting in a classroom, or even at work. Despite its prevalence, there was surprisingly little research directly connecting boredom to media use.

Earlier studies from the 1980s, especially those based on Zillmann’s mood management theory, had touched on boredom, mostly comparing it to stress and looking at media choices like TV programs after work (Bryant & Zillmann, 1984; Knobloch & Zillmann, 2002). Back then, people had limited access to media during the day, unlike today’s constant, mobile access. In the current media landscape, it’s less about managing a long-term mood and more about instantly regulating immediate emotions like boredom. Very little had been written about this newer context. That’s why we wrote a conceptual paper, published in the Journal of Media Psychology, to sketch how we now see boredom in the present day and what this means for studying it in the context of emotion regulation through media, both theoretically and methodologically (Poels, et al., 2022). This led us to develop a project proposal,

4. The Oxford Handbook of Entertainment Theory: <https://global.oup.com/academic/product/the-oxford-handbook-of-entertainment-theory-9780190072216?cc=be&lang=en&#>

and it was funded by the FWO (Research Foundation Flanders), which is a Flemish scientific grant institution. We are measuring different types of boredom and observing what kind of media content people choose to regulate their emotional state. We also conducted an innovative field study, where participants wore an Empatica wristband that captured EDA signals, and received pop-up messages every time they picked up their phone asking how they were feeling, including if they were bored. We followed participants for three full days and, using the Screenomics app, captured screenshots of their phone activity. This allowed us to link physiological data, self-reported emotions, and actual media use to better understand how boredom drives media behaviors, what content they choose, and how it affects their emotional state over time. We just analyzed the data and I can already reveal that 30% of phone pickups were related to boredom, which is a significant proportion.

YLJ : Thank you for sharing this fascinating project. In terms of emotions and behavioral outcomes, some research in the educational domain suggests that negative emotions, like anxiety, can impair learning (e.g., lower math performance), while other studies propose that negative emotions may actually facilitate learning. In the context of media use, how do affect influence how users engage with media, select content, or process information, based on your research or others in this field?

KP : That's a good question, and also a difficult one because it's quite complicated. You have valence and arousal levels that vary throughout the day depending on people's emotional state. For example, boredom is typically low in arousal and mildly negative in valence, but it can also present as high arousal—for instance, when you're overwhelmed by an activity, you can become bored with it too. It really depends on the context. I think it's mostly about trying to restore an optimal level of both valence and arousal. This is where emotion regulation through media comes in, like watching humorous videos to feel happier or more relaxed after a busy, overwhelming day. But it also depends on your available mental resources: when you're mentally

fatigued, you might gravitate towards different kinds of media compared to when you're fully replenished. For example, if you're tired, you might prefer lighter entertainment, whereas if you feel energized, you might engage with something more cognitively demanding like an interesting documentary or a learning activity. People's needs also shift throughout the day; if you have a high social need at a certain moment, you might start chatting with friends or messaging others to fulfill that sense of connection. In that way, media use also ties into intrinsic motivations like competence, autonomy, and relatedness, following ideas from self-determination theory.

Although I'm still very interested in finding the link between specific emotions and specific behaviors—like anger leading to expressive behavior, or fear leading to seeking safety and group affiliation—I'm increasingly influenced by Lisa Feldman Barrett's theory of constructed emotion (Barrett, 2017). Her work suggests there isn't a universal way people experience emotions; instead, emotions are constructed based on prior experiences, context, and culture. So what we call "anger" or "fear" might vary significantly between individuals. This would explain why, as communication scientists, we often struggle to find direct, consistent links between specific emotions and specific media behaviors or outcomes. According to Barrett's theory, physiological states are interpreted and labeled based on prior experiences and cultural background, and although on average they form prototypical emotions like fear, anger, joy, or hope, there is a huge amount of individual variability. Because of that, it's hard to establish one-to-one causal relationships between an emotion and a behavior. I believe there's a lot of potential for additional research applying the theory of constructed emotion to communication science, especially in understanding how prior experience and cultural factors shape emotional responses to media, persuasive messages, health communications, or political messages. To bring it back to core affect—focusing on dimensions like arousal and valence—we can continue exploring how these physiological elements translate into different outcomes, even

if the emotional labels and behaviors vary across individuals. So, it might be not a perfect or simple answer, but it reflects the complexity of the topic.

YLJ : **Back in 2006, you published a comprehensive review of two decades of emotion measurement in advertising. Since then, we've seen rapid technological advances. How has emotion measurement evolved over the years, and what trends do you see shaping its future across fields like advertising, media use, and communication?**

KP : That's a really interesting question because I think right now we are at a stage where we recognize the need to optimize how we measure emotions, meaning capturing emotions at the exact moment they occur. Ideally, this would happen continuously throughout the day across a large, diverse group of participants, because there is so much individual variation. If you have a specific research question, it is best to track more than one measurement point per individual, following them over longer periods and gathering multiple instances of both the emotional state as the independent variable and the outcome behaviors. With the technological advancements we have today, such as wearable devices that are becoming increasingly accessible and affordable, this is more feasible than ever. While we're not completely there yet, we're closer than ever before, especially with technological progress in data collection and processing. This shift aligns well with new insights in emotion theory, such as the theory of constructed emotions. To fully test this theory, these types of measurements are essential. I think this convergence of theoretical and methodological advances could lead to fascinating new insights into emotions in the coming years.

There is a lot of potential in studying emotions through social media. On one hand, we have the opportunity for more ambulatory measurement of emotions using ecological momentary assessments or experience sampling methods. On the other hand, the use of social media data, like sentiment analysis, offers an exciting avenue of exploration. For example, if you want to investigate whether a person's prior

experiences influence how they react to specific stimuli on social media—whether it’s a regular post or a campaign—you can trace what type of content they’ve been exposed to before or what they’ve posted themselves. You can assess whether that content is more positive or negative, as well as its emotional valence and arousal. Understanding the context in which a person has been operating could help determine how that affects their emotional reactions to specific media contents. Thanks to new technologies, we can now, at least theoretically, better take these factors into account than ever before.

YLJ : The media landscape has evolved significantly, with AI now playing a central role in how we interact with content. As AI-generated media becomes increasingly sophisticated, how do you think the design of artificial agents (e.g., chatbots, AI-driven advertisements) could influence our emotional responses and engagement with media?

KP : There are frameworks that have been around for quite some time to study how people interact with computers. This started in the 1980s when people first began using personal computers. One key piece of work from that era is the book *The Media Equation* by Reeves and Nass⁵. They showed that, on an emotional level, people often react to computers and systems the same way they would toward real humans. For instance, back in the ’80s, if people were told they were interacting with a “male” computer, they would display more stereotypical behavior toward it as if it were a male person. The same applies for a “female” computer. Over time, this line of research expanded to more sophisticated technologies like agents, avatars, and chatbots, and the same principle still holds: when people are interacting with a machine, their emotional reactions can mirror those they would have toward a human. This applies to both verbal and nonverbal behavior, as well as social interactions.

5. Byron Reeves and Clifford Nass (1996). *The media equation: How people treat computers, television, and new media like real people and places*. https://www.goodreads.com/book/show/615301.The_Media_Equation?from_search=true&from_srp=true&qid=RTtpQ3g279&rank=1

But the dynamic changes when people consciously consider they are interacting with a system. If they suddenly become aware that it's just a machine, it can "break the spell". So if you have a very good conversation, an intimate conversation with a chatbot, and then you noticed, ah, this is just a computer, it can become very frustrating, or it can leave people confused. The same can happen if people already know that they are interacting with a machine from the start. This prior knowledge can influence the conversation, making them more skeptical and causing them to behave differently. They'll likely experience different emotions because they're aware the interaction isn't with a real person. So yes, AI-based systems can definitely create emotional experiences that are just as intense and authentic as those with real human-to-human interactions. However, the complexity arises because people's prior experiences, knowledge, the context and individual differences all play a role. Someone who is skeptical of these systems, or who has had a bad experience with one, will likely react differently than someone who is open to such interactions and has had positive experiences.

YLJ : Looking ahead, what do you see as the most exciting or critical directions for future research on emotion in media studies?

KP : It actually ties back to what I was mentioning earlier. I think one of the most exciting directions for future research is the ongoing methodological advancements. Right now, the field is evolving towards much more complex designs where we follow individuals over longer periods, capturing more fine-grained insights into both their media use and their emotional states. This involves combining direct physiological measurements with experience sampling methods, asking people about their feelings at multiple moments. I believe this richer data collection will allow us to paint a fuller, more nuanced picture of emotional experiences and media interactions. At the same time, these methods are not only useful for observational studies but can also be applied to evaluate the effectiveness of persuasive communication strategies and interventions, particularly in health communication. This could lead to more targeted

and meaningful insights that were harder to achieve with older methods.

Through working on the TOP project⁶, which you were also involved in, I also became very interested in epistemic emotions, such as curiosity and interest, and how these emotions contribute to meaning-making processes. These deeper emotional responses can be crucial for helping people reach new insights on their own, which may feel much more meaningful and lasting compared to traditional persuasion techniques. For example, in your recent study on debunking misinformation (Jheng et al., 2025), we saw that narratives intended to correct vaccine skepticism could sometimes backfire. People who already held strong beliefs tended to perceive the messaging as too obvious or manipulative, resisting its intent. This illustrates that simply applying strategic communication techniques that work in one context may not be enough. People's beliefs are often deeply rooted, and they can recognize and resist strategies they perceive as manipulative. This is why I believe that fostering epistemic emotions, by creating experiences where individuals genuinely discover new, meaningful insights for themselves, could be key to having a more enduring impact. It could change how people view the world, how they interact with information, and ultimately, how they behave.

YLJ : What advice would you give to early-career researchers exploring emotions in media environments, especially given the rapid changes in technology?

KP : I think it's really important to find a good team or an established research group to work in. There is so much happening in the field, with so many fascinating topics, that it can be very easy to get lost without the right environment. A good research group gives you a space where you can have stimulating discussions, follow exciting work, and stay connected to new developments.

6. A Tale of Two Processes: the dynamic interplay between emotion and cognition when learning from texts: https://books.google.co.uk/books/about/A_Tale_of_Two_Processes.%20html?id=KCaj0QEACAAJ&redir_esc=y

At the same time, especially if you're writing a PhD, you also need to limit yourself to a specific topic. A supportive environment can help you find that balance—letting you develop your own focused line of research while still giving you the freedom to explore related interests that will be valuable later in your career. You get a lot of input and inspiration, but you also have the support to keep your feet on the ground and work steadily on your own studies.

So, I would say a good research environment is key. Not as an end goal in itself, but as a means to enrich your thinking, broaden your horizons, and still help you maintain a clear direction for your personal research journey.

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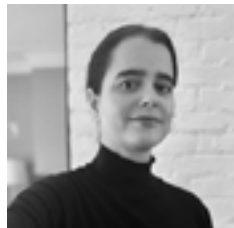
對話世界頂尖學者

媒體使用脈絡中的情緒研究：運用創新方法捕捉情緒反應 The role of emotions in media use: Innovative methods for capturing emotional responses

Discussants: Dr. Karolien Poels、鄭怡倫 博士

Editor: 鄭怡倫 博士⁷

Time: April 22, 2025



Dr. Karolien Poels



Dr. Yi-Lun Jheng

摘要

本期對話聚焦於情緒在媒體使用脈絡中的研究趨勢與發展，Karolien Poels 博士分享了她的研究歷程，並介紹她近期的一項研究計畫，該計畫關注「無聊」此一關鍵情緒，探討其如何驅動智慧型手機的使用。Poels 博士受到 Lisa Feldman Barrett 博士所提出之「情緒建構理論」啟發，進一步反思情緒與媒體使用行為之間錯縱複雜的關係。隨著媒體技術的迅速演進，對話亦延伸至人工智慧驅動媒體如何影響情緒反應與媒體參與行為。此外，Poels 博士亦強調情緒測量方法的重大進展，包括可穿戴式裝置、

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經驗抽樣法等技術與方法，使研究者得以更精確地掌握人們在日常生活情境中的情緒變化，尤其是在社群媒體使用過程中，這些方法學上的創新，正持續形塑媒體心理學領域中情緒研究的發展。最後，Poels 博士也向初入該領域的研究者，提供寶貴的建議，鼓勵他們尋求有助於學術成長與探索的支持性研究環境，以因應此快速發展的研究領域。

Dr. Karolien Poels 博士介紹

Karolien Poels 是比利時安特衛普大學傳播學系策略傳播與說服科技之正教授，亦為「媒體與資訊通訊技術於組織與社會」研究團隊（Media & ICT in Organizations & Society, MIOS）成員。她也是安特衛普社會實驗室（Antwerp Social Lab）的共同創辦人與實驗室負責人，該實驗室透過心理生理與行為方法，研究人際與媒介互動中的人類行為。

Karolien Poels 的研究圍繞於社群媒體及其他科技媒介環境中，針對社會挑戰的傳播策略，並且特別著重於情緒與認知歷程、行為相互作用之理論與方法層面的探索。多年來，她在相關核心領域的頂尖期刊發表過多篇文章，涵蓋說服傳播（如：《Journal of Advertising》、《International Journal of Advertising》、《Journal of Advertising Research》）、媒體心理學（如：《Media Psychology》、《Journal of Media Psychology》）、新媒體與科技（如：《New Media & Society》、《Cyberpsychology, Behavior and Social Networking》、《Computers in Human Behavior》、《Telematics & Informatics》）以及健康傳播（如：《Journal of Health Communication》、《Health Communication》），此外，她也曾於社會科學、心理學綜合型期刊（如：《Scientific Reports》、《Personality and Social Psychology Review》）及醫學期刊（如：《Vaccine》、《PloS Neglected Tropical Diseases》）發表研究成果。

Karolien Poels 亦積極參與科學社群的服務工作。她於 2013 年至 2018 年期間，獲選為佛蘭德斯年輕學者學會（Young Academy of Flanders）成員，並自願擔任理事，負責推動科學傳播相關事務。於 2020 年至 2023 年，她擔任荷蘭—佛蘭德斯傳播學會

(NeFCA, Netherlands-Flanders Communication Association. <https://nefca.eu>) 會長，該學會為荷蘭與佛蘭德斯地區重要的傳播學者學術組織，擁有逾 500 名成員。自 2024 年 6 月起，Karolien 擔任國際傳播學會（International Communication Association）傳播科學與生物學分會的國際聯絡人。

KP: Karolien Poels

YLJ: Yi-Lun Jheng

YLJ：是什麼契機讓您對媒體使用脈絡中的情緒議題產生興趣？是否有某段經歷促使您決定投入這個研究方向？

KP：這一切可以追溯到我還是在碩士生的時期。當時我們修了一門說服傳播的課程，課程內容主要介紹各種基本理論模型，例如：雙歷程模型（dual-process models）等。那是我第一次接觸到「人類行為並不總是理性的」這一觀點，也開始理解人們可能會受到一些極其細微的線索所影響。我意識到，情緒感受能左右行為表現，並且對一個人是否容易被說服有深遠影響，正是在那段時間，我對情緒在人類行為中所扮演的角色，產生濃厚的興趣。雖然我的碩士論文並未以情緒為主題，但在畢業後擔任研究與教學助理期間，我開始更深入地閱讀相關文獻，透過持續的閱讀與思考，我對這個議題愈發著迷，也因此確立了博士論文的主軸——以廣告中的情緒為研究核心。當時，神經科學領域出現了一些開創性的研究，像是 Antonio Damasio⁸ 和 Joseph LeDoux⁹ 的工作，他們發現人們其實無法在缺乏情緒的情況下正常生活或做出所謂「理性」的決策，顯示情緒與行為是密不可分的，尤其是在做出攸關個人福祉或公共利益的決策時。這些研究讓我深受啟發，而我也嘗試在 2000 年代初期攻讀博士期間，將這些洞見融入我的廣告研究中。之所以選擇廣告作為研究主軸，一方面是因為我的指導教授專精於此領域，另一方面則是我自己對廣告世界深感著迷，尤其是它如何說服人心，我希望能在這個領域中引入一套紮實的情緒觀點。

隨後，我發現荷蘭恩荷芬理工大學博士後職缺，研究主題聚焦於玩家在遊戲中所體驗到的情緒。這個主題立即引起我的關注，因為我一直致力於情緒研究，而「遊戲」當時正迅速崛起，成為傳播科學中一個嶄新的研究方向。更令我興奮的是，這份職位讓我有機會突破博士期間主要仰賴問卷調查來測量情緒的傳統方法，轉而進入實驗室環境，進行更直接的情緒測量。在恩荷芬的遊戲體驗實驗室裡，設有測量膚電活動、心率監測器與面部肌電圖等儀器，並有機會與心理學家與工程師們合作，他們在這些情緒測量方法上已累積了豐富的經

8. António Damásio (1994) 《笛卡爾的錯誤：情緒、理性與人類大腦》

9. Joseph E. LeDoux (1996) 《腦中有情—奧妙的理性與感性》

驗。當時我也正好在《Journal of Advertising Research》期刊上發表了一篇探討各種情緒測量方法的綜述文章 (Poels & Dewitte, 2006)，因此這份工作與我的背景無疑是非常契合的。在那裡工作了兩年多後，比利時安特衛普大學有一個關於傳播策略的職缺，我很幸運地被錄取為助理教授，我所加入的 MIOS 研究團隊關注一些重要的社會議題，如：網路霸凌。我將說服傳播與情緒研究方面的自身專業，與團隊其他專長相結合，共同開展新的研究計畫。隨時間推移，我的研究焦點逐漸轉向傳播策略，聚焦具挑戰性的社會議題，同時持續運用我在情緒與說服方面的知識。之後，我在安特衛普大學建立了一個實驗室空間，並開始與教育與培訓科學領域的同事合作，雖然他們較專注於眼動追蹤研究，但我們在研究興趣上有許多交集。這樣持續的合作，也反映出我的研究歷程是如何隨著時間不斷演進與拓展的。

YLJ：謝謝您分享您的研究歷程，您的職涯發展非常精彩，從廣告學到數位遊戲與情緒研究，接著轉向探討複雜社會議題中傳播策略。近期，您有一項研究計畫關注於「無聊」情緒與智慧型手機的使用，您能否談談這項研究計畫？是什麼吸引您將「無聊」作為研究主題？因為與憤怒等其他情緒相比，「無聊」往往被視為一種「低風險」的情緒，讓您認為它值得深入探究的原因為何？

KP：這項關於「無聊」的研究計畫是一個非常有趣的過程。當時我與 Heidi Vandebosch 博士受邀為《牛津娛樂理論手冊》¹⁰（由 Peter Vorderer 和 Christoph Klimmt 主編）撰寫一章節，聚焦於兩種負面情緒——憤怒與無聊，以及它們如何與媒體使用中的情緒調節產生關聯。我們希望探討當人感到憤怒或無聊時，會發生什麼情況，他們如何透過相關媒體來改變這些情緒狀態，以及他們選擇使用哪些媒體 (Vandebosch & Poels, 2021)。當我開始閱讀關於無聊的文獻時，我對它在日常生活與媒體使用中的核心角色感到著迷，許多人會直覺性地將自己使用手機、觀看串流影片或瀏覽社群媒體的行為，與無聊片刻相聯繫，例如：等公車或火車、坐在教室裡、甚至是在工作環境中。儘管這種情緒（無聊）如此普遍，卻出乎意料地僅有少量研究直接將無聊與媒體使用聯繫起來。

10. 《牛津娛樂理論手冊》：<https://global.oup.com/academic/product/the-oxford-handbook-of-entertainment-theory-9780190072216?cc=be&lang=en&#>

早期的研究，特別是 1980 年代以 Zillmann 的情緒管理理論為基礎的研究（Bryant & Zillmann, 1984; Knobloch & Zillmann, 2002），曾探討過「無聊」，但多半是將其與「壓力」進行比較，並觀察人們於下班後的媒體選擇，如：收看電視節目。當時人們接觸媒體的管道有限，與現在隨時隨地都能使用媒體的情況截然不同，如今，媒體使用不再是為了調節長期情緒，而是即時調節短期情緒（如：無聊）。然而，在此新媒體情境下，相關研究卻極其稀少，因此，我們撰寫一篇概念性文章（Poels, et al., 2022），發表於《媒體心理學期刊》（Journal of Media Psychology），旨在勾勒我們對「無聊」在當代社會中的理解，並探討其在媒體使用中，情緒調節的理論與方法論意涵。在這篇文章的基礎上，我們提出了一項研究計畫，並成功獲得比利時荷語區科學研究基金會（Research Foundation—Flanders, FWO）的資助。在此研究計畫，我們測量不同類型的無聊，並觀察人們會選擇哪些媒體內容來調節自己的情緒，我們進行了一項創新的田野調查研究，讓參與者配戴 Empatica 手環，藉此收集皮膚電活動（EDA）訊號，每當他們拿起手機時，系統會跳出一則訊息，詢問當下的情緒狀態，包括是否感到無聊，我們進行為期三天的追蹤，並使用 Screenomics 應用程式截取手機螢幕畫面，此設計能將生理資料、自我呈報的情緒狀態，與實際媒體使用行為相結合，從而了解「無聊」如何驅動媒體使用行為、影響內容選擇，以及這些使用行為如何隨時間改變他們的情緒狀態。目前，我們剛完成資料分析，我可以透露一個初步發現：高達 30% 的手機使用行為與「無聊」有關，這是一個非常顯著的比例。

YLJ：感謝您分享這項非常有趣的研究計畫。談到情緒與行為結果，在教育領域中，一些研究指出，像焦慮等負向情緒可能會妨礙學習表現（例如：數學成績偏低）；然而，也有研究發現，負向情緒有助於促進學習。在媒體使用的脈絡中，根據您本身或其他學者的研究，情緒如何影響使用者與媒體互動的方式、內容選擇，或資訊處理的過程呢？

KP：這是一個很好的問題，但也不太容易回答，因為情況相當複雜。情緒狀態會隨著一天中的時間推移有所起伏，影響情緒的價性（valence）與喚起程度（arousal），以「無聊」為例，它通常被視為低喚起、輕微負向的情緒，但有

時也可能呈現高喚起狀態——比方說，當你被某項活動壓得喘不過氣時，也可能因此感到無趣或厭煩，這其實取決於具體情境。我認為，關鍵在於人們會試圖恢復一種「最佳的情緒狀態」，在價性及喚起程度皆取得平衡，而這正是媒體在情緒調節中所扮演的重要角色。舉例來說，在經歷繁忙且備感壓力的一天後，有些人會透過觀看幽默影片來放鬆心情，不過，這也會受到當下心理資源多寡所影響，當你精神疲憊時，可能會傾向選擇較令人放鬆的娛樂內容；而當你精力充沛時，或許會偏好更具挑戰性、需要更多認知投入的內容，像是一部引人入勝的紀錄片或學習型活動。此外，人們的需求也會隨時間變化，若在某個片刻你渴求社交需求，可能會主動與朋友聊天或傳訊息，藉此滿足與他人連結的渴望，從這種角度來看，媒體使用其實也與內在動機有關，如：能力、自主性及關係，這些是自我決定理論（Self-Determination Theory）中核心要素。

雖然我仍然對特定情緒與特定行為之間的連結很感興趣，例如：憤怒可能導致外顯行為、恐懼可能驅使人們尋求安全與群體歸屬，但我也越來越受到 Lisa Feldman Barrett 的「情緒建構理論」（Barrett, 2017）的影響，她的研究指出，人們體驗情緒的方式並非普世一致；相反地，情緒是根據個體的過往經驗、情境與文化所建構而成的，因此，我們所稱的「憤怒」或「恐懼」，在不同個體之間可能有很大的差異，這也能解釋為什麼作為傳播學者，我們經常難以找到某特定情緒與某媒體使用行為或效果間，直接且一致的連結。根據 Barrett 的理論，人的生理狀態是透過過去的經驗與文化背景來詮釋與命名的，雖然整體而言，這些情緒常會形成一些典型的模式，例如：「恐懼」、「憤怒」、「喜悅」或「希望」等原型情緒，但個體之間實際上存在高度差異，有鑒於此，試圖將特定情緒與特定行為建立一對一的因果關係，實際上是相當困難的。我認為，「情緒建構理論」為傳播科學提供一個極具潛力的理論視角，有助於理解個體如何依其過往經驗與文化背景，建構其在媒體內容、說服訊息、健康傳播乃至政治溝通情境中的情緒反應。若回歸到核心情緒（core affect）的概念，亦即聚焦於喚起程度與價性這兩個維度，我們仍可持續探討這些生理基礎如何轉化為不同的行為結果，即使這些情緒標籤與行為表現會因人而異。這或許不是一個簡單明確的答案，但我認為這更真實地反映出這個議題的複雜性。

YLJ：您曾在 2006 年發表一篇綜述文章，回顧廣告學中二十年來有關情緒測量的研究。在此之後科技突飛猛進，您怎麼看待這些年來情緒測量方法的演變？又有哪些新興趨勢正在影響它在廣告、媒體使用和傳播等領域的未來發展？

KP：這是一個非常有趣的問題，我認為我們目前正處於一個關鍵階段，我們開始意識到必須優化情緒測量的方式，也就是要能夠在情緒發生的當下即時捕捉它，並且在理想情況下，這種測量應該是持續性的，且涵蓋大量、具多樣性的樣本群，因為個體之間的變異實在太大了。若你有特定的研究問題，最理想的作法是針對每位受試者進行多點的測量，長時間追蹤他們，並收集多次的情緒狀態（作為自變項）與後續行為。隨著現今科技的進步，例如：穿戴式裝置變得更容易取得、價格也更親民，這樣的方式已比以往更可行，雖然我們還沒完全達到理想狀態，但相比過去，我們已經更接近目標了，尤其是在資料收集與處理技術方面的突破。這樣的發展也與情緒理論的新進展（例如：情緒建構理論）相互呼應，若要真正驗證這類理論，就必須仰賴這種即時、細緻的測量方式。我認為，這種理論與方法論的交匯，將產生情緒研究的有趣的新洞見。

此外，研究社群媒體情境中的情緒議題也有很大的潛力，一方面，我們可以透過生態瞬時評估（ecological momentary assessments）或經驗抽樣法（experience sampling methods）進行更貼近日常生活的情緒追蹤；另一方面，分析社群媒體中的資料，如：情感語意分析（sentiment analysis），也是一個非常令人興奮的探索方向，舉例來說，若想探究一個人的過往經驗是否會影響他們如何回應社群媒體上的特定內容，無論是一般貼文或宣傳活動，可以追蹤他們先前接觸過哪些內容，或他們發佈了哪些貼文，並進一步分析這些內容的情緒特徵，其情緒價性（正向或負向）與喚起程度，掌握這些背景脈絡，有助於我們更深入理解他們對特定媒體內容的情緒反應是如何形成的。有賴於新興技術的發展，如今我們至少在理論層面上，能更全面地將這些因素納入考量。

YLJ：近年來，媒體環境經歷了重大的轉變，人工智慧在我們與內容互動的方式中，扮演越來越重要的角色。隨著人工智慧所生成的媒體內容日益成熟，您認為在人工智慧代理的設計上（例如：聊天機器人、人工智慧驅動的廣告），可能會如何影響我們的情緒反應與媒體參與行為？

KP： 有些理論架構早在很久以前就已被提出，用來研究人們如何與電腦互動，這類研究最早可以追溯到 1980 年代，也就是人們開始使用個人電腦的時期。其中一部經典作品，是由 Reeves 和 Nass 所著的《媒體等同論》（The Media Equation）¹¹ 一書，他們發現，在情緒層面上，人們對電腦與系統的反應，往往與對待真人無異，在 80 年代的實驗中，若告訴受試者他們正在與一台「男性」電腦互動，他們就會展現出對男性的刻板印象行為反應；若被告知為「女性」電腦，則會展現出不同的行為模式。隨著科技的進步，這研究脈絡延伸至更先進的科技，例如：智慧代理、虛擬角色與聊天機器人，然而其核心原理仍適用：當人們與機器互動時，其情緒反應經常與面對真人的反應相似，這種現象不僅體現於語言互動，亦包含非語言行為與社交互動。然而，一旦人們意識到自己其實是在與一個系統互動時，這種互動動態就會產生變化，有時甚至會「打破那種沉浸的魔法」，舉例來說，當你與聊天機器人進行一段很深入、甚至有些私密的對話，卻突然驚覺「啊，這其實只是個電腦系統」，那種頓悟可能讓人感到挫折，甚至陷入困惑，同樣地，如果人們一開始就知道自己面對的是機器，他們的行為將有所不同，可能會更為防備、保留，甚至引發不同的情緒反應，因為他們明瞭這不是一場與真人的互動。因此，雖然人工智慧確實能創造出與真人互動同樣強烈且逼真的情緒體驗，但其中的複雜性在於：人們過往的經驗、知識背景、情境脈絡及個體差異，皆會影響這類互動的情緒反應，像是對這類系統抱持懷疑態度者、或曾經有負面體驗的人，與那些對此類互動持開放態度、且有正面經驗者，其反應往往截然不同。

YLJ： 展望未來，您認為在媒體研究領域中，關於情緒的研究有哪些令人期待或關鍵的發展方向？

KP： 這與我先前提及的內容有關。我認為，未來研究中最令人興奮的方向之一，就是研究方法的持續進步。目前，這個領域正朝向著更為複雜的研究設計發展，也就是長時間地追蹤個體，並細緻地收集他們的媒體使用行為與情緒狀態，這通常結合了更直接的生理測量以及經驗抽樣法，在多個時間點詢問受試者的感

11. 情緒與認知歷程：文本學習中的雙重要素及其互動。Byron Reeves and Clifford Nass (1996)《媒體等同：人們該如何像對待真人實景一樣對待電腦、電視和新媒體》https://www.goodreads.com/book/show/615301.The_Media_Equation?from_search=true&from_srp=true&qid=RTtpQ3g279&rank=1

受。我相信，這種更豐富的資料收集方式能幫助我們更完整、也更細膩地描繪出人們的情緒體驗及媒體互動模式。這些方法不僅適用於觀察性研究，也可以被應用來評估說服性溝通策略或介入措施的效果，特別是在健康傳播的領域，這將有助於產出更具針對性和深度的研究洞見，而這些往往是以往研究方法難以實現的。

透過你也參與其中的 TOP 計畫¹²，我對「知識情緒」（epistemic emotions）也產生極大的興趣，像是好奇心這類情緒，它們與人們建構意義的過程密切相關。這類更深層的情緒，對於幫助個體自行產生新的見解至關重要，而這樣的見解，往往比傳統說服技巧更具意義、效果也更為持久。在你近期關於針對疫苗錯誤資訊進行闢謠的研究中（Jheng et al., 2025），我們發現，當試圖以敘事手法糾正與疫苗相關的錯誤觀念時，有時可能適得其反，特別是對於那些深信疫苗陰謀論者，他們往往將這類訊息視為過於直白或帶有操控意圖，因此產生抗拒，這也顯示單純套用某些在特定情境中有效的策略性傳播技術，未必能奏效。人們的信念往往根深蒂固，且能夠察覺與抗拒他們認為具有操控意圖的訊息。正因如此，我認為若能透過培養知識情緒，讓人們親自經歷發現新知與意義的過程，可能帶來更深遠的影響，這不僅能改變人們的世界觀、資訊選擇，最終還能改變他們的行為。

YLJ：有鑑於科技與測量方法的快速發展，對於剛開始探索媒體情境中情緒議題的學生涯初期研究者，您會給予哪些建議？

KP：我認為找到一個優秀的團隊，或加入一個成熟的研究群體格外重要。這個領域發展迅速、主題多元，吸引人的議題數不勝數，在這樣的情況下，若沒有一個合適的環境引導與支持，很容易讓人迷失方向。一個好的研究團隊，不僅提供了討論與交流的空間，更能激發思考，讓你持續接觸到令人振奮的研究工作，同時掌握最新的學術發展。

然而，特別是在撰寫博士論文階段，更需要懂得適度聚焦，專注於一個具體的研究主題。理想的研究環境能幫助你在探索與聚焦之間找到平衡——一方

12. 情緒與認知歷程：文本學習中的雙重要素及其互動。https://books.google.co.uk/books/about/A_Tale_of_Two_Processes.html?id=KCaj0QEACAAJ&redir_esc=y

面建立起清晰的研究主軸，另一方面也保留空間去培養相關興趣，而這些興趣往往會在日後的學術生涯中發揮價值。你會從團隊中獲得源源不絕的啟示與啟發，同時也能在實務上獲得堅實的支持，協助你腳踏實地地完成自己的研究。因此我想說，良好的研究環境絕對是關鍵，它不單是學術旅程中的目標，而是一種助力，幫助你深化思維、拓展視野，同時保有清晰明確的研究方向。

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