

## H9CEAI: Customer Engagement and Artificial Intelligence

Module Code:	H9CEAI
Long Title	Customer Engagement and Artificial Intelligence <b>APPROVED</b>
Title	Customer Engagement and Artificial Intelligence
Module Level:	LEVEL 9
EQF Level:	7
EHEA Level:	Second Cycle
Credits:	10
Module Coordinator:	Rejwanul Haque
Module Author:	Shauni Hegarty
Departments:	School of Computing
Specifications of the qualifications and experience required of staff	
<b>Learning Outcomes</b>	
<i>On successful completion of this module the learner will be able to:</i>	
<b>#</b>	<b>Learning Outcome Description</b>
LO1	Critically assess the impact of Trust and AI on customer engagement lifecycle as well as determine its regulatory requirements.
LO2	Analyse, summarise, and critique AI technologies applied for attracting, engaging, persuading, and retaining customers.
LO3	Design and evaluate Recommender Systems, ChatBots, and Intelligent Agents to support customer engagement strategies.
LO4	Critically assess and implement processes combining humans and machines tasks in the context of customer engagement
<b>Dependencies</b>	
<b>Module Recommendations</b>	
No recommendations listed	
<b>Co-requisite Modules</b>	
No Co-requisite modules listed	
<b>Entry requirements</b>	

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Module Content & Assessment			
Indicative Content			
<b>The problem with Netflix</b> A review of the Netflix customer engagement model. How that sets the standard for AI Customer Engagement.			
<b>Trust and AI – why customers do not trust AI Systems</b> In recent years, there has been a 'tech-lash' with customers not trusting AI systems – why has this happened? How do leaders need to approach this? What impact does this have on Customer Engagement?			
<b>Ethical AI</b> Detailed analysis of the role of Ethics and AI and how critical it is for Customer Engagement.			
<b>Using AI to Manage the Customers Attention and Engagement</b> How can AI technologies be used to manage and engage the customer? Analysis on the role Social Media plays and raising awareness and concerns.			
<b>Using AI to persuade and retain the customer</b> How can AI be used to persuade customer? What are the risks associated with this? What role can AI play in Customer Service?			
<b>Designing Chat Bots</b> What are ChatBots? What are the main types of Bots and the major platforms supporting them? The role they can play in Customer Engagement.			
<b>The Anatomy of a Bot</b> Breaking down a Bot and defining its core purpose and functionality.			
<b>Intelligent Agents</b> What are intelligent agents and how do they learn? What tools are available to support the development of Intelligence Agents? How can they be used to maintain and manage Customer Engagement?			
<b>Recommender Systems</b> What is required to develop a recommender system? How Recommender Systems work? How can Recommender systems support Customer Engagement?			
<b>AI and Marketing</b> How Marketing can build upon topics covered in this module, such as bots, intelligent agents, and recommender systems, to attract new customers and retain the existing customers?			
<b>Human + Machine</b> How can humans and machines work together and what will that mean for Customer Engagement?			
Assessment Breakdown			%
Coursework			100.00%
<b>Assessments</b>			
Full Time			
Coursework			
<b>Assessment Type:</b>	Formative Assessment	<b>% of total:</b>	Non-Marked
<b>Assessment Date:</b>	n/a	<b>Outcome addressed:</b>	1,2,3,4
<b>Non-Marked:</b>	Yes		
<b>Assessment Description:</b> Formative assessment will be provided on the in-class individual or group activities. Feedback will be provided in written or oral format, or on-line through Moodle. In addition, in class discussions will be undertaken as part of the practical approach to learning.			
<b>Assessment Type:</b>	Continuous Assessment	<b>% of total:</b>	30
<b>Assessment Date:</b>	n/a	<b>Outcome addressed:</b>	1,2,3
<b>Non-Marked:</b>	No		
<b>Assessment Description:</b> Discuss the challenges an organisation faces with AI and engaging with Customers. How can AI tools improve and enhance this experience?			
<b>Assessment Type:</b>	Continuous Assessment	<b>% of total:</b>	70
<b>Assessment Date:</b>	n/a	<b>Outcome addressed:</b>	1,2,3,4
<b>Non-Marked:</b>	No		
<b>Assessment Description:</b> Discuss the approach for introduction or augmentation of the new technologies discussed – Chatbots, Recommender Systems, Intelligent Agents – to your organisation. What problems can they resolve? Critically assess and analyse why you would support a specific technology and problem it would resolve.			
No End of Module Assessment			
No Workplace Assessment			
Reassessment Requirement			
<b>Coursework Only</b> <i>This module is reassessed solely on the basis of re-submitted coursework. There is no repeat written examination.</i>			

## H9CEAI: Customer Engagement and Artificial Intelligence

Module Workload				
Module Target Workload Hours 0 Hours				
Workload: Full Time				
Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	Lectures	24	Once per semester	2.00
Independent Learning	Independent Learning	202	Once per semester	16.83
Practical	Practical/Tutorials	24	Once per semester	2.00
Total Weekly Contact Hours				4.00

Module Resources	
<i>Recommended Book Resources</i>	
<p>Coeckelbergh, M. (2020). AI Ethics. The MIT Press. [ISBN 978- 0262538190]..</p> <p>Sterne, J. (2017). Artificial Intelligence for Marketing: Practical Applications. Wiley. [ISBN 978- 1119406334]..</p> <p>Shevat, Amir. (2017). Designing Bots: Creating Conversational Experiences. O'Reilly Media. [ISBN 978- 1491974827]..</p>	
<i>Supplementary Book Resources</i>	
<p>Zuboff, S. (2020). The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power. PublicAffairs. [ISBN 978-1541758001]..</p> <p>Kahneman, D. (2011). Thinking, Fast and Slow. Penguin Press. [ISBN 978-0141033570]..</p> <p>O'Neil, C. (2017). Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy. Crown. [ISBN 978-0553418835]..</p> <p>Nielsen, A. (2020). Practical Fairness: Achieving Fair and Secure Data Models. O'Reilly Media. [ISBN 978- 1492075738]..</p> <p>Schrage, M. (2020). Recommendation Engines. The MIT Press. [ISBN 978-0262539074]..</p>	
<i>Recommended Article/Paper Resources</i>	
<p>Weinberger, D. (2019). Can we trust machines that sound too much like us? Harvard Business School. Retrieved at <a href="https://hbr.org/2019/05/can-we-trust-machines-that-sound-too-much-like-us">https://hbr.org/2019/05/can-we-trust-machines-that-sound-too-much-like-us</a>.</p> <p>McKendrick, J. (2020). AI has yet to break the trust barrier. Forbes. Retrieved at <a href="https://www.forbes.com/sites/jeomckendrick/2021/01/12/artificial-intelligence-has-yet-to-break-the-trust-barrier/?sh=755787e47e1c">https://www.forbes.com/sites/jeomckendrick/2021/01/12/artificial-intelligence-has-yet-to-break-the-trust-barrier/?sh=755787e47e1c</a>..</p> <p>Longoni, C. &amp; Cian, L. (2020). When do we trust AI's recommendations more than people's? Harvard Business School. Retrieved at <a href="https://hbr.org/2020/10/when-do-we-trust-ais-recommendations-more-than-peoples">https://hbr.org/2020/10/when-do-we-trust-ais-recommendations-more-than-peoples</a>.</p> <p>Longoni, C. &amp; Morewedge, C. K. (2019). AI can outperform doctors. So why don't patients trust it? Harvard Business School. Retrieved at <a href="https://hbr.org/2019/10/ai-can-outperform-doctors-so-why-dont-patients-trust-it">https://hbr.org/2019/10/ai-can-outperform-doctors-so-why-dont-patients-trust-it</a>..</p> <p>High-Level Expert Group on Artificial Intelligence (2019). Ethics guidelines for trustworthy AI. European Commission. Retrieved at <a href="https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai">https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai</a>.</p> <p>Davenport, T. H. (2019). What does an AI ethicist do? MIT Sloan Management Review. Retrieved at <a href="https://sloanreview.mit.edu/article/what-does-an-ai-ethicist-do/">https://sloanreview.mit.edu/article/what-does-an-ai-ethicist-do/</a>..</p> <p>Mayika, J., Silberg, J., &amp; Presten, B. (2019). What do we do about the biases in AI? Harvard Business School. Retrieved at <a href="https://hbr.org/2019/10/what-do-we-do-about-the-biases-in-ai">https://hbr.org/2019/10/what-do-we-do-about-the-biases-in-ai</a>..</p> <p>The Economist (2018). For Artificial Intelligence to thrive, it must explain itself. The Economist. Retrieved at <a href="https://www.economist.com/science-and-technology/2018/02/15/for-artificial-intelligence-to-thrive-it-must-explain-itself">https://www.economist.com/science-and-technology/2018/02/15/for-artificial-intelligence-to-thrive-it-must-explain-itself</a> ..</p> <p>Kannan, P. V. &amp; Bernoff, J. (2019). Does your company really need a Chatbot? Harvard Business School. Retrieved at <a href="https://hbr.org/2019/05/does-your-company-really-need-a-chatbot">https://hbr.org/2019/05/does-your-company-really-need-a-chatbot</a>..</p> <p>Fingar, P. (2018). Competing for the future with Intelligent Agents... and a confession. Forbes. Retrieved at <a href="https://www.forbes.com/sites/cognitiveworld/2018/11/11/competing-for-the-future-with-intelligent-agents-and-a-confession/?sh=55e3921e613d">https://www.forbes.com/sites/cognitiveworld/2018/11/11/competing-for-the-future-with-intelligent-agents-and-a-confession/?sh=55e3921e613d</a>..</p> <p>Wilson, H. J. (2018). Human plus machine: Reimagining work in the age of AI. Harvard Business School. Retrieved at <a href="https://hbr.org/webinar/2018/08/human-plus-machine-reimagining-work-in-the-age-of-ai">https://hbr.org/webinar/2018/08/human-plus-machine-reimagining-work-in-the-age-of-ai</a>.</p>	
<i>This module does not have any other resources</i>	
Discussion Note:	