



# CHAT2LEARN

## Chatbot technologies for digital entrepreneurship education and adult learners

*Project n. 2020-1-CY01-KA204-065974*

*IO1: Developing a chatbot learning environment in the field of digital  
entrepreneurship*

*1.1. Collecting best practices and tools on Technology Enhanced Learning and  
creation of a resource library on topic*

PREPARED BY





# Good practices template

## ***Good practice definition***

A “good practice” can be defined as follows:

A good practice is not only a practice that is good, but a practice that has been proven to work well and produce good results, and is therefore recommended as a model. It is a successful experience, which has been tested and validated, in a broad sense, which has been repeated and deserves to be shared so that a greater number of people can adopt it

## ***Good practice criteria***

The following set of criteria will help us to understand whether a practice is a “good practice”:

- **Effective and successful:**

A “good practice” has proven its strategic relevance as the most effective way in achieving a specific objective; it has been successfully adopted and has a positive impact on individuals and/or communities

- **Technically feasible:**

Technical feasibility is the basis of a “good practice”. It is easy to learn and to implement

- **Replicable and adaptable:**

A “good practice” should have the potential for replication and should therefore be adaptable to similar objectives in varying situations

- **Environmentally, economically and socially sustainable:**



A “good practice” meets current needs without compromising the environment and/or the social cohesion of the territories

<b>Title</b> <i>Amber InFeedo</i>	
<b>Date/Period</b> <i>Prototyped in 2016</i>	<b>Authors</b> <i>InFeedo</i>
<b>Partner</b> <i>Lidi Smart Solutions, The Netherlands</i>	

<b>Element</b>	<b>Guiding question</b>
<b>Type of practice</b>	<i>Amber is a technical solution of an AI-enabled chatbot which helps HR personnel identify employees' dissatisfaction, disengagement and attrition.</i>
<b>Publisher (optional)</b>	<i>Desktop research through the use of newspapers, articles and various websites related to e-commerce and customer service.</i>
<b>Target audience</b>	<i>The target audience of the chatbot Amber are the companies and organizations in general and HR personnel in particular.</i>
<b>Objective/Aim</b>	<p><i>Amber is a smart AI-enabled engagement bot which periodically chats with employees and aims to help HR staff proactively identify those who are disengaged, unhappy or about to leave, then address their issues to the relevant persons. This chatbot connects with employees across organizations to collect actionable insights for HR, predict potential attrition and measure company culture in order to improve employee engagement, and gain a real-time sense of overall sentiment.</i></p> <p><i>Amber enhances employees comfortably sharing their work problems avoiding the fear of being fair facing the HR personnel. Her reach-outs are timely, personalized, and</i></p>



	<p>customized, based on specific milestones in an employee's tenure, focused not only on asking questions but listening and responding accordingly.</p>
<b>Location/Geographical coverage</b>	<p>International. The concept of Amber has been initially developed in India.</p>
<b>Description</b>	<p>Unhappy employees are found in every workplace and it is a continuous challenge for every office to identify them and then address their issues. The disgruntled employee is one of the top worries for every business leader, but dealing with them is still much of an art and very less science. Up until now.</p> <p>Pushing the envelope, companies are now using bots to analyse people's expressions and tone to determine traits such as confidence and happiness in order to help HRs identify confident candidates during interviews. Apart from calling the shots at hiring, AI-enabled bots are also fulfilling the roles of a companion. One such chatbot is Amber. It is the flagship product of Gurgaon-based startup inFeedo whose aim is to help HRs find the unhappy and disengaged employees in the company.</p> <p>The idea of Amber took shape when Delhi-based Tanmaya Jain was pursuing Computer Science engineering from Shiv Nadar University in Delhi. Unhappy with the employee satisfaction factor in the world and the fact that employees often lack the courage to share their problems at work with their superior, Jain thought of creating a chatbot to whom employees can pour out their troubles confidentially. While simultaneously being fascinated with the growing startup ecosystem in the country, Jain roped in his college pal, Varun Puri and started inFeedo in 2013, just after completing his first year in college.</p> <p>After giving three years into the startup, Jain realized he had reached nowhere. In September 2016 Jain presented Amber's prototype in The Vault Show, an Indian version of Shark Tank. Amber had caught the investors' eyes and they were fighting to invest in the chatbot.</p> <p>Amber works on a simple model- engage and identify. Every employee in the company receives a chat request from Amber</p>



	<p>periodically. It asks a set of personalized questions such as, “Is your work as good as it is expected to be?” or, “Is your manager helping you reach your full potential?” The questions keep changing their course on the basis of the answers. Amber also keeps note of what is working for the employees and what’s not and which employees are truly happy. Based on the employees’ feedback, Amber divides them into three categories- High Risk employees, Medium High Risk employees, No Risk employees.</p> <p>When employees give a negative response, Amber does not reprimand them, but instead engages further to understand the cause of the problem by asking additional questions. When the same employee expresses unhappiness repeatedly for months, that’s the cue for Amber to alert the HR.</p> <p>The questions are framed by inFeedo’s in-house people science team, which comprises members with background in behavioural psychology, psychometrics, statistics and HR. If required, the organisations can also add certain questions.</p>
<p><b>Methodological approach</b></p>	<p>InFeedo leveraged its understanding of artificial intelligence (AI), NLP (Natural Language Processing), and machine learning (ML) techniques to develop a chatbot, Amber. With CEO sponsorship within customer organizations, Amber engaged with personnel at pre-defined durations as a "virtual assistant of the CEO." The aggregated chat sentiment supplied employee engagement analytics to the leadership team. The platform predicted disengaged personnel and recognized the attrition risk.</p> <p>In contrast to the annual engagement surveys, the broad-based sentiment analysis was more efficient in reporting personnel engagement. Employee engagement surveys are expensive for the organizations, face delays in translating data to action, and lack actionable insights for the practitioners.</p> <p>The use of "Amber" as a replacement for the traditional practices inside HR opens discussions about the changing role of HR, the efficacy of the use of AI in HR work, ethics of the use of AI, and challenges of provoking a culture change within the HR divisions. Can leveraging AI to HR work support the break of its "administrative" image?</p>



	<i>In addition, the ethics around the use of AI-based chatbots and the resulting data analytics introduce challenges to both the users and the advocates of this new system.</i>
<b>Finance</b>	<i>Investors.</i>
<b>Constraints (optional)</b>	<i>Such were not identified.</i>
<b>Outcomes</b>	<p><i>Implementing the Amber in the organizations leads to reduced number of HRBPs and hours spent with each employee while improving the employees' engagement, increasing the retention rate and potential attrition prediction.</i></p> <p><i>Some figures from companies who have implemented Amber chatbot.</i></p> <ol style="list-style-type: none"> <li><i>1. IIFL (Bankind, financial services, insurance):</i> <ul style="list-style-type: none"> <li><i>● 13% infant attrition reduced.</i></li> <li><i>● 10% disengagement cases predicted.</i></li> <li><i>● 70% increase retention from highlighted cases.</i></li> <li><i>● 4.06 org mood score (out of 5).</i></li> </ul> </li> <li><i>1. GO MMT Group(Online travel):</i> <ul style="list-style-type: none"> <li><i>● 12% increase retention rate.</i></li> <li><i>● 5 Pt increase Hi-Po retention.</i></li> <li><i>● 14% increase org mood score.</i></li> <li><i>● 83% increase org response rate.</i></li> </ul> </li> <li><i>2. OYO (Hospitality):</i> <ul style="list-style-type: none"> <li><i>● 75% increase at-risk employees saved.</i></li> <li><i>● 4.1 org mood score (out of 5).</i></li> <li><i>● 80% response rate.</i></li> <li><i>● 200% employee base growth.</i></li> </ul> </li> </ol>
<b>Replicability and/or up-scaling</b>	<p><i>Amber chatbot can be easily replicated in every HR department of any organisation as it works on a simple model - engage and identify. Afterwards the HR staff and the senior leaders try to address the issues. One of the best features of Amber is that the chats are confidential and only few people have access to them.</i></p> <p><i>Amber was explored in the role of welcoming new employees in order to save HRs' and managers' time as well as engaging with people who are in need to speak to or understand their</i></p>



	<p>concerns about. Interestingly, its human-like touch brought to about 40% of the people in the company think Amber is real. While the initial trials were not satisfying enough there is certainly a great potential for growth in this direction. With further development and training the model it can be implemented in many industries.</p>
<b>Conclusion (optional)</b>	Such was not shared.
<b>Opinion (optional)</b>	<p>Express your opinion on a scale from 1 (=min) to 5 (=max) about:</p> <ul style="list-style-type: none"> <li>● Usability – 5.</li> <li>● Relevance (the degree to which the problem addressed by the good practice is experienced as significant) – 5.</li> <li>● Granularity (the degree to which the good practice is detailed) - 5.</li> <li>● Integration (the degree to which to good practice can be integrated in the Chat2learn project) - 2. Difficult for integration as it requires enormous work to develop and train the bot. Amber aims to obtain information during the chat rather than provide such.</li> </ul>
<b>Further considerations</b>	None.