



# 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>BOB - Virtual assistant of University of Siena</b> (What is the name that best describes the good practice?)	
<b>2018-19</b> (When was the good practice documented/published/carried out?)	<b>University of Siena</b> (Who – person/organization – wrote/carried out the good practice?)
<b>ASSET</b> (who collected the practice)	

Element	Guiding question
<b>Type of practice</b>	Prototype
<b>Publisher (optional)</b>	Newspapers articles
<b>Target audience</b>	Being a prototype developed by the Department of Computer Science and Information of the University of Siena (Italy) - in collaboration with a French startup - to test more advanced features of a chatbot, it does not have a predetermined target
<b>Objective/Aim</b>	Bob's goal is to experiment with a conversational virtual assistant, capable of carrying on a dialogue in the same way as he would expect from another human being, with the ambition of becoming a reference point of how an assistant should be and what it should do.
<b>Location/Geographical coverage</b>	Italy - France
<b>Description</b>	<p>Bob looks like a nice, well-behaved child who intends to have a free conversation with the user.</p> <p>Bob works to build a paradigm of knowledge exchange, that is, man can impart commands and knowledge to enrich the dialogue not aimed at achieving a purpose but also to converse. Virtual assistants usually do a search, while Bob knows something about animals or geopolitics but everything revolves based on its knowledge. Then he can make arguments, comparisons.</p> <p>The idea is to build an assistant who can react to unpredictable questions. It should not only answer questions like: "how many degrees are there?" or "what is the program of the day?" but exchange information. Bob can accumulate data both by</p>



	<p>studying digital books and absorbing the user's knowledge, even on personal details, such as the habits of his pet (name, what it eats, where it sleeps). Even abstract concepts in the same form in which they would be taught to a small child.</p>
<b>Methodological approach</b>	<p>The research was born from the finding that anyone using a personal assistant on a smartphone every day knows the frustration of having so many limits in speech and conversation: you have to stay within often rigid boundaries to make sure that the assistant understands what you want.</p> <p>One of the most evident characteristics of these systems is that they can respond only to some functionalities, which are those the chatbot was designed and marketed for.</p> <p>Bob, at least for the moment, will not leave the prototype and research object state to allow the scientific community to work on the problems highlighted.</p> <p>Bob, therefore, does not have to perform a specific function but has been designed to learn and have a free conversation with the user: if you ask Bob why a cat has four legs, it will not be caught, but he will answer that it is so because "It is a quadruped and therefore has four legs".</p>
<b>Finance</b>	University of Siena
<b>Constraints (optional)</b>	Bob appeared rather awkward to some reporters attending the presentations. Every now and then it stumbles and hides behind an "I don't understand".
<b>Outcomes</b>	<p>The news that has been possible to find on the net does not allow us to describe the project's outcomes that gave life to Bob.</p> <p>From reading some newspaper articles, it seems that the prototype currently only works on a PC, as a program of the Department of Artificial Intelligence of the University of Siena, and not on smartphones with a rather base interface.</p> <p>Bob appears on the screen inviting you to start a conversation ("Hello there, I'm ready to start to talk with you").</p> <p>The main difference from the commercial chatbots currently in use is the construction of a continuous library of content in the program that Bob can draw on to sustain the conversation. Bob can "read" digital books and memorize names, simple</p>



	<p>concepts (even abstract ones), grammar rules, etc. and use them in conversation. Interactions with humans are also memorized: Bob can remember names or events and then retrieve them to communicate with his human interlocutor.</p>
<b>Replicability and/or up-scaling</b>	<p>3</p> <p>The judgment is "neutral" in the sense that the technical characteristics of the prototype make it replicable in other contexts but, not having a commercial purpose, and therefore not being designed to perform a specific function, it may not be scalable</p>
<b>Conclusion (optional)</b>	
<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: 4</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): 2</li> <li>● Integration (the degree to which good practice can be integrated into the Chat2learn project) : 5</li> </ul>
<b>Further considerations</b>	