The first chatbot of a tourism/hospitality journal:
Editor’s impressions

Stanislav Ivanov

Abstract
The first chatbot of an academic journal in the field of tourism and hospitality was launched in 2017. This editorial presents the structure of the chatbot of the European Journal of Tourism Research, reflects on Editor’s experience in developing and using the chatbot, and provides practical recommendations to editors and publishers who may wish to adopt chatbots for social media communications.

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Introduction
The Facebook page of the European Journal of Tourism Research (EJTR) ([https://www.facebook.com/EuroJTR/](https://www.facebook.com/EuroJTR/)) went live on 5th January 2011. It was created as a tool to communicate with the board members, authors, readers and reviewers in social media (Ivanov, 2018). My experience during the first 6 years (2011-2017) of its existence showed that many of the questions received through the page were similar and related to a very few issues: Is the journal indexed in Scopus/Web of Science? Does it have an Impact Factor? How to submit a paper? How to become a reviewer? How to access the papers? How much does it cost to publish? etc., but I was not always able to respond in a timely manner. Hence, the communication process was ripe for automation. On 24th August 2017, the journal’s chatbot was introduced as an instrument to increase the speed, effectiveness and efficiency in the provision of information about the journal through its Facebook page. At that time, it was the first chatbot of an academic journal in tourism/hospitality and probably one of the very first chatbots of an academic journal globally. In this editorial I present the structure of the chatbot, reflect on my experience in developing and using the chatbot for social media communications, and provide practical recommendations to editors and publishers who wish to adopt chatbots as well.

Architecture
The chatbot is created using the chatbot platform Chatfuel ([https://chatfuel.com/](https://chatfuel.com/)). There are many platforms on the market. I chose that platform for two main reasons. First, it has a convenient and easy to use interface that allows a person without knowledge and skills in software engineering (someone like me) to develop a chatbot. Second, the platform's free version has functionalities that are sufficient for a basic chatbot for the provision of information. The architecture of the bot includes 3 elements: blocks, links between blocks, and AI rules.

Blocks
The chatbot consists of 20 blocks related to various aspects the journal – from publisher and editorial board, through types of papers, review process, and referencing, to plagiarism, indexing, and publication charges. Figure 1 provides a screenshot of some of the blocks from the administrative panel of the chatbot. Most of the blocks are informative and provide answers to questions (e.g. Indexing, Published papers, Editorial board), while the aim of other blocks is to make the communication between the user and the chatbot smoother and more pleasant (e.g. Welcome, Thank you, Good bye!). A separate block allows users to opt-in to receive messages from the chatbot. There is no limit to the number of blocks and new ones can be added when needed. The content of three sample blocks is presented in Figure 2.

Links
Each informative block provides links to other relevant blocks or the website of the journal in order to facilitate the navigation of the user through the chatbot’s blocks (see Figure 2). In that way, the users could receive information about related topics or they are transferred to the website of the journal ([http://ejtr.vumk.eu/](http://ejtr.vumk.eu/)). Most of the informative blocks include a ‘call for action’ button – Submissions. It should be noted that the number of links one block may have to other blocks or to other websites is limited (in the case of the EJTR’s chatbot these are 3 links), hence the links than need to appear with each block have to be chosen very carefully.
Figure 1. Chatbot blocks

Figure 2. Content of sample blocks
AI rules
The AI rules indicate the key words that trigger response by the chatbot. The response can be either activating a particular block or a free text response. Figure 3 provides a screenshot with some sample AI rules used by the chatbot of the EJTR. Besides the key words, the AI rules includes indicative sentences that show the context in which the word could be used. The initial rules created during the development of the chatbot were expanded and enriched with new trigger words and sentences, based on the actual communication between the chatbot and the users. Different spelling (British and American), synonyms, abbreviations, and typos were considered for some key words.

![Sample AI rules](image-url)

**Figure 3. Sample AI rules**
Impact
Since the launch of the chatbot in 2017, 56 users have communicated with the chatbot. In most cases the communication was smooth, the chatbot recognised what the users were looking for and responded in a proper way, especially when the users were utilising the buttons of the blocks. That was not the case, however, when the users were typing free text questions. As the chatbot has limited functionalities dictated by its intended application (providing answers to frequently asked questions about an academic journal), the questions that fell outside the scope of its blocks and AI rules remained unanswered, which caused some user frustration. In such situations I interfered and responded to the query. Furthermore, the chatbot’s default language is English; hence it does not recognise words written in other languages. All in all, each conversation provided valuable feedback on how to improve the chatbot through new blocks, new links between them, new AI rules or enriching the existing rules with more trigger words and exemplary sentences. Furthermore, the chatbot definitely saved time in responding to queries and did this in a timely manner. The development and the maintenance of the chatbot took about 6 man-hours so far, while responding to the queries would have taken much more time.

From a marketing perspective, my impression is that the chatbot contributed positively to the submissions in the EJTR. The internal records of the journal show that 7 manuscripts were submitted by the users within a couple of months after they had communicated with the chatbot. Unfortunately, I cannot determine whether they had decided to submit to the journal before or after they had communicated with the chatbot.

Conclusions, insights and recommendations
The chatbot is a tool that facilitates the provision of answers to (frequently asked) questions and stimulates user action. It should not replace human-human interaction but support it. A chatbot should not be created to shield the editor from communicating with the authors, but as a tool to provide faster response when the editor cannot do this. In addition, the editor needs to be in control of the communication between the chatbot and the users. Based on my personal experience in developing and using the EJTR’s chatbot, I can provide the following recommendations to journal editors and publishers who wish to adopt chatbots for social media communications:

- Formulate the proper goal you want to achieve with the chatbot – provision of information about the journal, stimulating submissions, maintaining relationships with the page fans/chatbot users. The goal will determine the chatbot’s blocks and functionalities.
- Inform the users that they communicate with a chatbot to suppress potential users’ expectations about human-level interaction with the bot.
- Develop blocks that provide relevant and sufficient information about the journal – publisher, frequency of publication, editorial board, special issues, submission guidelines, etc.
- One block needs to refer to one issue/action only – i.e. providing information about how to submit a paper or about the indexing of the journal, not both. This provides greater flexibility when developing the AI rules and in responding to users’ queries.
- Provide useful and relevant links between the blocks – i.e. the Submission Guidelines block needs to include a button with a link to the referencing style as well.
- Update the blocks, links between the blocks, and the AI rules on the basis of the actual chatbot-user interactions.
- Keep the information provided by the chatbot up-to-date – e.g. about special issues submission due dates.
- Direct the user to journal’s online submission system to stimulate submissions.
✓ Direct the user to the journal's website to stimulate readership.
✓ Re-engage with the users that already interacted with the chatbot, by sending automated messages – e.g. news about the journal, new special issue, approaching submission due dates, or holiday greetings.
✓ Keep the human in the loop – the chatbot should not be left alone in the communications with the users. The human should interfere when the chatbot provides irrelevant answers to users’ queries.

My personal view is that a basic chatbot that provides information and redirects to the journal's submission system and website is more than sufficient for a single journal. There is no need to invest resources (time and money) in developing a very comprehensive chatbot for an individual journal. That is not case, however, when we talk about publishers – their chatbots need to be much more elaborate.

Finally, we should not forget that a chatbot, regardless of how sophisticated it is, as any other piece of technology, is just a tool, not a goal. It is the human-to-human communications and relationships that are important. If a chatbot enhances them – it does a good job. Otherwise – it needs to be fired.

References

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