

Fostering Student Engagement through AI-driven
Qualitative Quality Assurance Practices

QUALIA Implementation Guide

IO4 – University of Twente

Author: Robert Muster

1. Introduction

This document describes the implementation guidelines for IT professionals working in universities. The aim is to enable scalability and transferability of the virtual interview assistant, allowing other HEI's to adopt and utilize the tool for their institutions' quality departments.

The virtual assistant is a platform as a service (PaaS) designed to run on the cloud. The main advantages of such approach are the cost savings over the on-premise alternative for universities and other HEI. In addition, a PaaS increases the accessibility and ease of deployment by shortening the development time required for installing and configuring both the hardware infrastructure and software components. The virtual assistant is therefore offered to any interested party as a service and is accessible immediately after the initial setup.

The following part of the document provides the procedure for deploying QUALIA to interested HEI's.

Implementation guidelines

Being designed as platform as a service on the cloud, there is no hardware or software infrastructure required on the interested third party. The only requirement is a stable broadband connection to internet. The system is deployed on the cloud in a private instance and is accessible immediately via the web browser. The service is delivered ready to run; however, customization is possible on both the dialogue flow and on the front end. In order to deploy the virtual assistant an interested HEI needs to follow a three-step procedure: a) request access, b) initial setup of the dialogue flow, and c) agree on the Service level agreement.

Access request

The interested HEI has to request access to the virtual assistant tool. After completing the initial setup, the virtual assistant instance is available immediately and ready to use. Each university receives a unique entry point to the virtual assistant system. The entry point can be configured to adhere to specific constraints such as running on intranet via a proxy or VPN. Moreover, each instance can be configured to run on a subdomain of the requesting university website. Each instance of the virtual assistant runs in separated virtual environments; reducing the possibility of data leaking or privacy protection issues across instances.

Initial setup of the dialogue flow

Each Qualia instance can be configured by the requesting HEI to meet specific requirements. For example, the set of questions can be changed to an extent and the chatbot dialogue flow can be redesigned by the HEI's personnel on the fly using the admin panel. Similarly, the front-end user interface can be customized in terms of colors, imagery, avatars, etc.

The engagement model embedded in the virtual assistant can also be extended, each HEI being able to add any needed dimensions and subdimensions to the initial model. However, the main goal of the virtual interview assistant is not to become an all-purpose chatbot. Therefore some specific constraints are applied. For example, the student engagement model and the core set of questions (which are aligned with the student engagement model) cannot be removed entirely. Nevertheless, the addition of customized prompts, specific for each university is possible and encouraged. Universities and other HEI's can add prompts that clarify the situation for their participants. For example, an university can alter the dialogue flow by introducing new dialogue branches in case of

specific answers as illustrated in Figure 1. In a similar manner, specific questions and dialogue branches can be excluded from the virtual assistant interview guidelines. Each customization is made via the control panel accessible from the web.

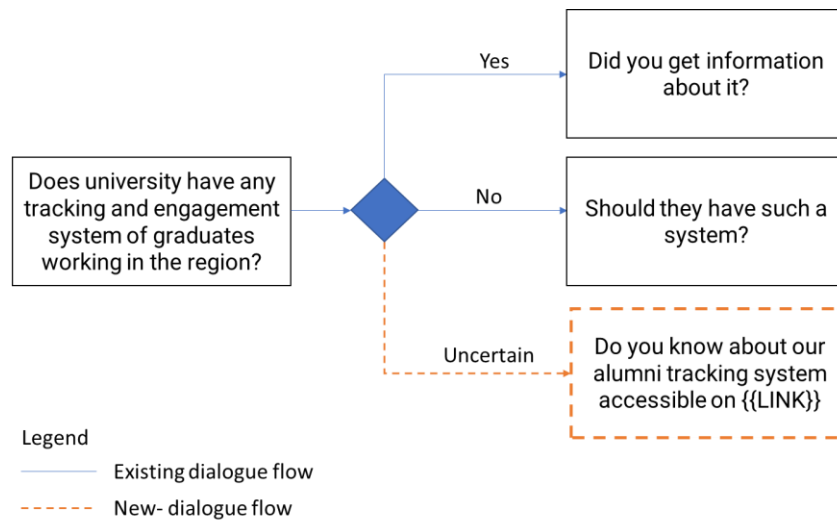


Figure 1- Altering the dialogue flow (demonstration excerpt); In the new dialogue flow (in orange) the {{LINK}} is a typical URL form the HEI's website.

Each QUALIA instance includes access to the admin panel, and the user manual for both university admins and end-users.

Service Level Agreement

The service is offered with different SLA (service level agreements) on request. The standard SLA includes software and hardware maintenance (security updates, testing, debugging) and ensures an uptime of 99.8%. The standard variant covers also 10 hours of technical support. Upon request, different SLAs can be agreed.



Funded by
the European Union



Project Partners



UNIVERSITY
OF TWENTE.



Co-funded by the
Erasmus+ Programme
of the European Union