Engenharia de Serviços (MEI / MES)

2022/2023

Practical Project, part 1

Applying service design techniques to model a real-world service

Deadline #1 (part 1, for feedback): 10 March 2023 (23h59m)
Deadline #2 (part 1+ part 2, for assessment): 19 May 2023 (23h59m)
Submission via Inforestudante

Note: Academic fraud is a serious ethical breach and is not admissible behavior for a student and future practitioner. Any attempt of fraud may lead to the cheater and their accomplices failing the course. Other sanctions may additionally apply.

Objectives

Apply the service design techniques to model a service, and, in doing so:

- Gain an understanding of the complexity of services and the need for the said techniques.
- Develop competencies in using those techniques for diagnosing and evolving existing services and for designing new ones.

Submission

For part #1 (specification of the service) of this assignment, you must submit:

- Persona(s) – two well-defined personas are enough for the purpose of the assignment.
- Customer journey map(s).
- Stakeholder map(s).
- Expectation map(s).
- Other elements that the groups deem relevant.

The first three instruments are available in the Smaply software used in the course. Others require additional forms or tools. Further details are provided in class.
A set of PDFs with the deliverables must be generated and submitted via Inforestudante by the deadlines.

Overview

This assignment aims to model and implement a modern pharmacy service for medical prescriptions. It is assumed that customers already have a medical prescription and the respective QR code on their mobile phones.

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When entering the pharmacy, the user starts by showing the QR code of the prescription to a reader device at the counter. The list of prescribed drugs is shown on the screen of the pharmacist where he is already logged in with regular username and password credentials. The pharmacist could change each prescribed drug to a generic one if the doctor had allowed it in the prescription. In those cases, the pharmacist must ask customers whether they prefer the generic or not.

After finalizing the list of drugs, the customer must pay using either the pharmacy's face recognition technology, credit card, or cash. Upon successful payment using face recognition, the customer gets an SMS with a number to collect the purchased items and an email with the receipt. In payments with credit card or cash, the customer directly gets a printed receipt with the number that also allows them to collect the purchased items.

Meanwhile, a robot collects the purchased items, and a pharmacy assistant delivers them to the right customer based on the purchase number. After delivery, the assistant updates the purchase status directly in the robot interface.

You may assume that the payment account has been previously topped up. Note that the pharmacist is not the "customer". Consider where the above information about it should be used in the diagrams that you need to submit.

References

Researching facts and not making assumptions is part of the process of good service diagnosis and design. Feel free to investigate real services like the one described for inspiration in modeling yours. The instructors are available to discuss your options.

Electronic prescription reading at the pharmacy (https://www.digitalhealth.gov.au/healthcare-providers/initiatives-and-programs/electronic-prescribing/for-dispensers)

Important aspects (based on errors frequently made by students)

Regarding personas

It is important that the descriptions of the personas are rich and detailed. They must be credible as if we were describing real people. Only knowing people well enables you to

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design a service that suits them. Regarding the number of personas, it's not about being a lot or just a few, but how different and complete are the described profiles and needs. For instance, it does not contribute a lot to the service design if we have a lot of personas with basically the same needs; but we should not leave out important profiles.

Regarding customer journey maps

Being so rich, this is one of the most important tools in service design. It enables us to understand how the customer "travels" along our service. It's almost like a movie, where we have various scenes or snapshots in sequence. One of the most important aspects – see slides and book – is to make sure that we have the most adequate touchpoints (the moments of interaction). Journey maps are also very powerful in the sense that they enable us to relate what the customer sees and does with back-office actions and systems and the channels that are used for the interaction in touchpoints. If the customer receives a notification by SMS (channel), then there must have been a back-office system/person/process sending that message (back-office lane) — all these events and lanes must be consistent with each other. It is the proper synchronization of people, technology, and processes that ensures that the service flows smoothly. Pay close attention to how front-end systems and back-end systems interact across various channels. All must be consistent in the customer journey map. Remember that a channel is a "means for contact": email, phone, SMS, face-to-face encounter, land mail, etc. Product or money are not channels.

Regarding the number of maps, check the slides and book. It all depends on the level of abstraction and detail that you decide is adequate. You may have "happy path" scenarios, exception scenarios, different maps for different ways to use the service, etc. Please also remember that your maps must be understandable. Avoid too much clutter in one map (e.g., lots of personas).

It is frequent for people to forget touchpoints when modeling. Remember that confirmation emails/SMS are touchpoints, email/SMS warnings of the impending arrival of the order at your home are touchpoints, the physical interaction with the delivery person is a touchpoint.

Regarding stakeholder maps

It is key to identify the different importance of the various involved stakeholders. Keep things clear, so that someone else can understand the exchanges between the various actors. The number of maps to create depends on the different scenarios of exchanges that you want to explain.

Regarding expectation maps

Expectation maps should be consistent with the profiles and needs of your personas. It does not make sense to have several different personas, with different motivations, and then just the same expectation map for all of them. Indeed, some expectations may be common, but others will be different. For instance, someone with a lot of money and little time has different expectations than someone short on cash. The expectations of a young active person are different from those of a senior or handicapped person.

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