31. USER STORY MAPPING AS AN EFFECTIVE TOOL IN PRODUCT DEVELOPMENT

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The expediency of using user story mapping in the development of a software product is presented in the paper. The value of user stories for business analysts, product managers and stakeholders are substantiated. The tools, steps and the 3 C's of the user story mapping process are described.

About 90 % of all start-ups end in failure. Experts say that this happens for two reasons: poor market research at the start of creating an MVP and insufficient feedback [1]. To clarify, MVP stands for minimum viable product and is used to test business ideas. The idea of the MVP is to package the key functions into a simple and, importantly, cute product version, and then test it on the market. Typically, a common challenge for many organisations is how to take the high level stated requirements from senior staff, stakeholders, users and translate them into actionable and logically ordered items. Even if they write a long and detailed list it can be very difficult to read, consume and check for omissions. Many people are visual learners and so respond well to a visual picture.

If it is difficult to assess the stages of the project. Gaps appear in the backlog, the planned release is disrupted, and the team cannot agree who invests the most in the product. Then it's time to master a new tool –user story mapping. User story mapping (also known as user story maps, story maps, and story mapping) is a lean method that recreates the user's "path" by MVP. Thanks to user story mapping, you can follow all the options for interacting with the product: from the first launch to the target action, for example, purchases. Through this technique, the team develops a visual perception of the entire picture of the business project, partitioned into sprints – from idea to implementation. Visualisation also allows to see the interrelation between the individual stages, to set priorities correctly and not to miss important tasks.

Today user stories are one of the major methods of work for business analysts, designers and product managers. User stories aim to show the development team the essence and value of the tasks to be realised. User stories are informal, natural language descriptions of features, or tasks, written from the perspective of the user. In other words, they're intended to get the team talking to each other about solutions in the context of end users and the benefit they'll receive. These conversations help everyone arrive at shared understanding much faster than reading a requirements document. User stories can be written at a high level to describe a full product or feature and what it enables users to do or at a low level, to outline an interface element and its value [2].

Story maps enable teams to plan a release by presenting requirements using user stories. In reality, story maps make all these requirements ordered horizontally and reflects the complexity of implementation vertically. To put it another way, user story mapping is a visual exercise that helps product managers and development teams define the work that will create the most delightful user experience. It is used to improve the understanding of your customers and to prioritise work. According to Nick Muldoon, Co-CEO, Easy Agile, "User story mapping is a facilitated, curated conversation that brings everyone along for the journey" [3]. So, in user story mapping teams develop an interaction scheme of a user's interactions with the product, define which actions have the biggest utility for the user, and determine what should be done next.

It is possible to allocate a large number of the advantages of user story mapping. Firstly, the opportunity to see a product from a user's view. The team uses sticky notes and sketches to outline the interactions that the team expects users to go through to complete their goals in a digital product. More precisely, a user story will keep your user in the spotlight. Secondly, the ability to better define the importance and sequence of tasks in order to complete the product as anticipated. Thirdly, the ability to reach cross-team clarity. Understanding what to produce for whom, why, and when will help manage the process, allowing everyone to communicate in the way that supports the overall product development process. Generally, user story maps provide an understandable, structured, transparent and contextual view of user stories ensuring that any of the required steps have not been missed.

Unfortunately, instruments such as user story mapping and a customer journey map are often confused. User story mapping gives an understanding of what should be done to launch a product, what functions need to be improved, which tasks need to be done now and which ones – later. In other words, to prioritise. On the other hand, a customer journey map is a diagram or several diagrams that depict the stages customers go through when interacting with a company, from buying products online to accessing customer service on the phone to airing grievances on social media. To create effective visual maps that reflect customers' journeys through these channels, journey maps must be rooted in data-driven research and must visually represent the different phases customers experience based on a variety of dimensions, including customer sentiment, goals and touch points. Another difference is timing. A customer journey map is applied at the planning stage, when the niche is defined, and a user story map is used later, when the team has already started developing the product itself.

The user map is based on three simple tools. The first tool is a user persona or a portrait of the target client. User personas are intended to give a reliable and realistic reflection of how a business could expect a group of people to engage with a product, service or campaign. For user story mapping, it is why the client turns to the product. The second one is a user story. A user story is a well-formed, short and simple description of a software requirement from the perspective of an end-user, written in an informal and natural language. It is the main artifact used in the agile software development process to capture user

requirements. User stories are made according to a simple template: role – desire – benefit. A user story is needed to focus on the goals of the project from the user's point of view. The third tool is a user journey, which is the basis of user story mapping. A user journey is about all the user's interactions with the product [4].

The user story mapping process consists of the following steps. The first one is to identify high level activities. This can be done by reviewing the user journey for the relevant part of the system that you want to create the map for. These activities are also known as "goals" or "themes". Such journeys should be relatively clear and apparent from the high level requirements, but should be reconfirmed with the relevant stakeholders. Once you have this list of activities you arrange them in chronological order from left to right as if you were telling the story of your user's journey. The second one is to document the steps. It is required in order to complete all the necessary functionality in order to achieve the activities. These steps are often individually labelled as epics as they tend to encompass closely linked groups of user stories and tasks and are often referred to as the "backbone" of the story map, as they provide much of the structure. The last step is to identify the details. These will be the actual user stories and tasks required at a fine granular level. These are best fleshed out in conjunction with not only the stakeholders who are asking for the functionality, but also with the team who will be building it to ensure the best solutions are designed.

There are three critical steps to work best with user stories: card – conversation – confirmation, also known as the 3 C's of user stories. A card – a written description of the story used for planning and estimation. Conversation – discuss your ideas with others. Let them ask lots of questions. Work together to come up with ideal solutions. The goal is to build a shared understanding. Confirmation – work towards agreement on what to build. Record that agreement as a set of confirmation tests [5].

User story mapping is a highly interactive and visual method of representing a list of stated requirements from stakeholders, senior employees and users of the system in a chronological and structured way. It provides a highly transparent way of examining the functionality which has been identified to the build, the order in which to build it and the desired release slices that will be made available to the users.

To sum up, it can be noticed that story maps encourage productive, user-centered discussions about product creation, improve visibility for the backlog, and allow teams to see the bigger picture. If done properly, user-story maps reveal logical and releasable slices of product increments that meet users' needs, while uncovering impacts and areas of risk ahead of development. This allows teams to learn what works and what does not. Savvy teams use this knowledge to drive decisions about where to focus their time to maximise usability, value, and feasibility in subsequent iterations. Using user story mapping specialists can decrease time costs for product requirements analysis, have one point of view with stakeholders and developers, have a clear customer journey, clearly understand features for MVP and easily make changes in the requirements. The main goal of story mapping is to facilitate product discovery and prioritise development tasks. It can be achieved by putting user actions and tasks on a map to help keep them in context. User story mapping is a very important tool for business that has a large number of advantages. They include an easy understanding of the whole app, a common picture of the final product and a clear development plan. Indeed, it is a great method of task creation, proper prioritisation and further implementation into the project. And certainly, user story mapping will continue to gain its popularity and demand.

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