

## The Desired UX Impact (DUXI) Approach for UX Strategy

The UX of different systems (products, services) may be more, or less important in different businesses. In some business cases, one may need a very high level UX while in other cases a modest level UX may be sufficient.

The key feature of the *Desired UX Impact (DUXI)* strategy is that the determination of the importance of UX – the *desired UX impact* – of a system to be developed is a business management (not a UX team) issue. The DUXI approach provides guidance for how to determine the DUXI of a system-to-be developed with appropriate business level measures and target levels, and how this information guides the UX development process.

### 1. Background

#### The Importance of UX Varies

UX is a quality factor of a system (product, service). Generally, the quality requirements are different for different systems.

Also the importance of UX to the business is different in different systems. In some systems, UX is more important; in other systems, it may be less important. Consequently, in some projects, one may need to carry out challenging, top-level UX work, while modest, basic level UX work is sufficient in other projects.

#### The Business Management Defines The Desired UX Impact

The importance of UX of a system is determined by its *UX (business) impact*: what kinds of positive business impact the business management desires to achieve with the UX of a system. The business management defines this desired impact as *Desired UX Impact, DUXI*, which is defined with appropriate measures and target levels. The UX team provides UX insight and helps the business management to determine the DUXI, but does not make the decisions.

#### Determining DUXI Is Analytical Work, Not A 'Cost Justification' Issue

The nature of DUXI determination is different from the traditional 'cost justifying usability/UX' approach. The UX team *does not try to sell UX* through 'cost justifying'. Instead, the UX team approaches *analytically* the potential importance of UX and helps business management to identify whether and to which extent UX may provide positive impacts to business.

It may be well that only modest UX impact can be identified, and thereby only modest amount of UX work is needed. But in other cases, the UX impact may be crucial for the success of the system, and a many and highly competent UX resources are needed in the development process.

### 2. The Steps of The DUXI Strategy

The DUXI strategy is a general one, applicable to Gamma Airlines as well as any system (product, service) development project.

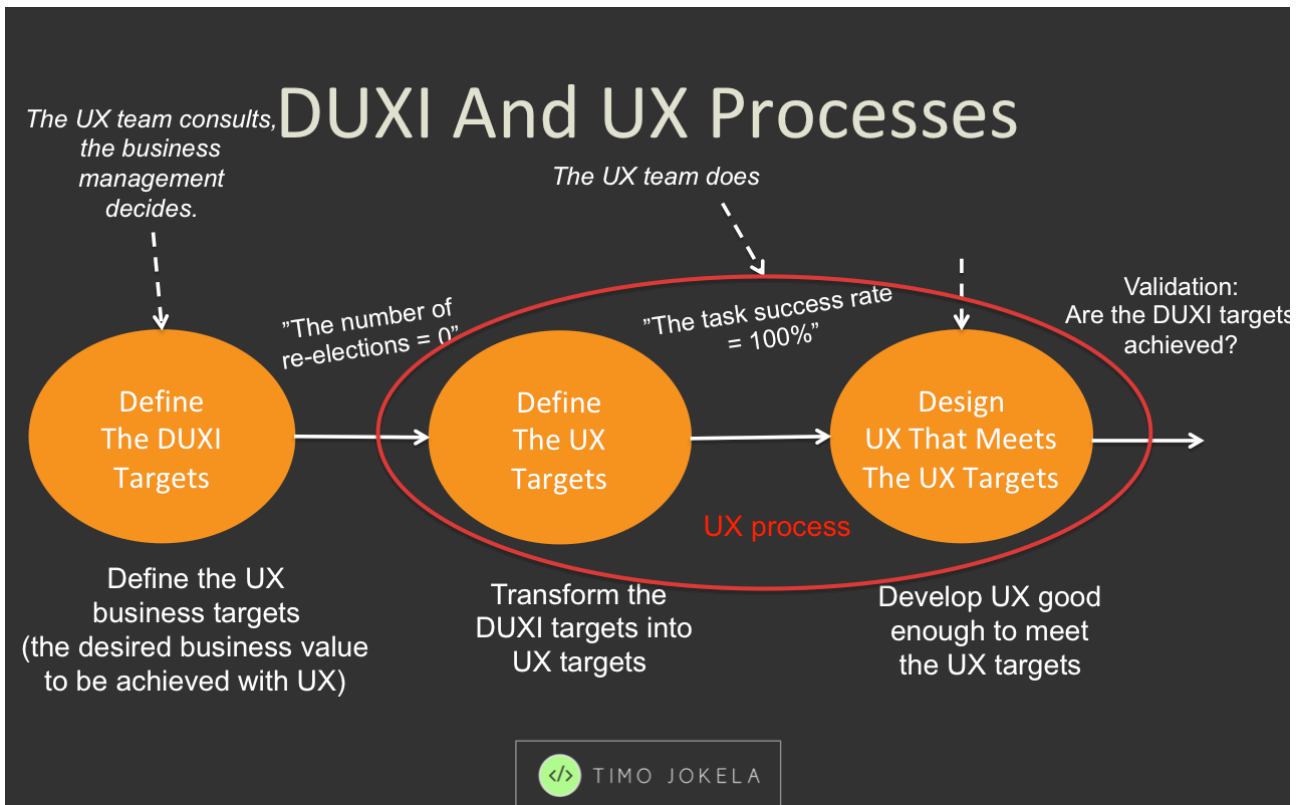
The DUXI approach can be regarded as an extension of the traditional UX life cycle, with the extension of the DUXI process.

In the following, the main steps of the UX process with the DUXI extension are described<sup>1</sup>. In the next chapter, the strategy is illustrated with an example.

1. For each new development project, assign a *DUXI* (*'Determine the Desired UX Impact'*) task. This task should be carried out immediately after the decision of a starting a new project is made.
2. The DUXI task includes the following main steps:
  - a. The UX team: *Gain a deep enough understanding of the customer's world* where the system-to-be-developed will be used. (There is a separate strategy for how to do this effectively; not discussed here)
  - b. The UX team: *Identify users and tasks that users are to perform* with the system-to-be-developed. This is 'basic' UX work.
  - c. The UX team: *Identify what kind of business risks may take place due to poor user performance*. In other words, what negative consequences for business may occur if users fail in performing tasks (in objective or subjective measures). One can also think of positive impacts, but often thinking through risks is easier.
  - d. The UX team and Business Management: *Define the DUXI targets*.  
The UX team presents their findings to Business Management. The findings are discussed; possibly new risks are identified. The business management makes a decision on which risks are to be avoided. As a result, the *DUXI targets* are defined: appropriate DUXI measures, and their target levels.  
*Note:* DUXI measures are specific for each system – because businesses are different - and may be very different in different cases.
3. The UX Development Process:
  - a. The UX Team: *Define the UX Targets*. The UX team transforms the DUXI targets into UX targets: UX measures and target levels.  
*Note.* The UX measures are 'traditional' UX measures, and are totally different from DUXI measures. Transformation DUXI targets to UX targets is task of intelligent nature: one should estimate what level UX is good enough to meet the DUXI targets.
  - b. The UX Team: *Plan and carry out UX activities* so that the UX targets are (measurably) achieved. This is 'basic' UX work.
4. *Validate the results*.
  - a. The UX Team and Business Management: *Validation*. When the system is in use, measure whether the DUXI targets are achieved.

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<sup>1</sup> The process has more details, e.g. may include iteration, but is presented here at an overview level.



### 3. Illustration of the DUXI Strategy

The DUXI Strategy is a general one, applicable to Gamma Airlines as well as to any other case.

Because DUXI Strategy is highly business dependent, and I personally do not know airlines business, I illustrate the approach with another case that I have used.

I use a *voting machine* (of election) as an example. Voting machine is a realistic example: a few years ago a re-election had to be organized in Finland because some users failed to successfully cast a vote with the voting machine, due to problems in the user interface design.

Illustration of the DUXI process of a voting machine:

1. For each new development project, assign a task '*Determine the DUXI*'.  
**Voting machine: The DUXI process is initiated.**
2. The Determine the DUXI task includes the following main steps:
  - a. The UX team: *Gain a deep enough understanding of the customer's world* where the system-to-be-developed will be used.  
**Voting machine: Understand the election where voting machines are used.**
  - b. The UX team: *Identify users and tasks that users are to perform* with the system-to-be-developed.  
**Voting machine: The key user task: Cast a vote.**
  - c. The UX team: *Identify what kind of business risks may take place due to poor user performance*.  
**Voting machine: If users fail in successfully casting a vote, the results of the election may be neglected, and re-election may be needed.**

- d. The UX team and Business Management: *Define the DUXI targets.*  
**Voting machine: It is agreed that the UX must be so good that no re-election will be needed. The DUXI measure is defined as ‘Number of Re-elections’<sup>2</sup>. The target level is defined as ‘zero’. In other words, the DUXI target is that no re-elections are needed due to UX problems.**
3. The UX Development Process:
  - a. The UX Team: *Define the UX Targets.*  
**Voting machine: The UX team concludes that in order to reliably achieve the target, the voting machine need to be tested with 100 users. The target level is that \*no\* test user fails due to UX problems<sup>3</sup>. In other words, the measure is ‘user success rate’, and the target is no failings in tests with 100 users<sup>4</sup>.**
  - b. The UX Team: *Plan and carry out UX activities* so that the UX targets are (measurably) achieved.  
**Voting machine: Routine UX work.**
4. *Validate the results.*
  - a. The UX Team and Business Management: *Validation.*  
**Voting machine: Check whether a re-election was needed.**

#### 4. Summary

The proposed DUXI strategy model is a general one, applicable to any system (product, service) development project. It can be used at Gamma Airlines, but also generally in any system (product, service) development projects.

It can be considered as an extension of the ‘basic’ UX process, the extension being the inclusion of the business aspect of UX through the DUXI determination task.

To summarize, the main features of DUXI determination are:

- The starting point is that the importance of UX to business varies in different systems
- The overall goal of DUXI is to define what kind of business value (‘impact’) the business management desires to achieve with the UX of the system. The decision is a business management issue.
- The target for the UX development to business is formulated as ‘Desired UX Impact’ measures and target values.
- The UX team transforms the business related DUXI targets to UX targets
- The UX process is planned and carried out so that it leads to a system that meets the UX targets, and thereby the DUXI targets.

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<sup>2</sup> This is an illustrative example that DUXI measures – in this case ‘number of re-elections’ - are very application dependent, and very different from UX measures.

<sup>3</sup> Naturally, the testing procedure is to be described at a much more detailed level.

<sup>4</sup> It should be considered, that users may fail for other reasons than UX; such failings should probably not impact the acceptance result.