

REQUIREMENTS ENGINEERING IN SOCIAL NETWORKS

TEAM 2- ZURICH TOURISM APPLICATION



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TANVI SINGH
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AGENDA

- Members and Assumptions
- No of Requirements
- Prioritized list of Requirements
- Kinds of Requirements
- Requirements Quality
- Negotiation & Convergence
- Discussion over Time
- WinBook tool
- Favorite Requirement



Members and Assumptions

- TEAM MEMBERS AND ROLES

ROBERT SHARP- SHAPER

TANVI SINGH- TESTER

NIKITA SHAH- PROJECT MANAGER

KARTHICK- SOFTWARE ARCHITECT

ILYA RYZHOV- USABILITY EXPERT

- ASSUMPTIONS:

- Business value was given slightly higher weight, because it was assumed that long-term revenue generation and decreases in the costs of certain technologies would eventually offset costs of implementation for costly requirements.
- We assumed an inverse relationship between Business Value and Ease of Realization, ie a high business value made a win condition more desirable, whereas a low value in Ease of Realization related to an easily implementable requirement

How many requirements did you get?

- 22/27 agreed win conditions
- Not agreed upon, reworded or incorporated into 22.



Did you get a prioritized list of requirements?

- The requirement for secure payment interface proved to be the most important
- Some of the experiential requirements proved to be least important, due to their high cost of implementation
- Some requirements, such as the one specifying GPS-based navigation, proved to evoke more discussion than expected

**Win Condition (WC_1558):** Transportation
The app must be able to locate locations using GPS technology.
[Agree](#) · [Potentially Agreeable](#) · [Comment](#) · [Raise Issue/Concern/Risk](#)

**Issue (Iss_909):**
App could use wifi/cell phone tower/Internet address instead of GPS. As like current version of Google map is doing.
[Close Issue](#) · [Comment](#) · [Suggest Option/Alternative\(s\)](#)

**Issue (Iss_889):**
How is GPS going to work inside of large buildings? I would like to have navigations also in large buildings, e.g., the main station.
[Close Issue](#) · [Comment](#) · [Suggest Option/Alternative\(s\)](#)

**Option (Opt_423):**
Thanks, [redacted] I selected GPS arbitrarily. This requirement could say that the app must locate locations using GPS or other navigation technology (where available).
[Disagree](#) · [Comment](#)

You agree to this

**Option (Opt_414):**
I think an alternative could be the common use of GPS and some Augmented Reality stuff to have more precise points tagged
[Agree](#) · [Comment](#)

What kind of requirements did you get? Goals?

Functional requirements? Non-functional requirements?

(If so, what kind of?)

- The vast preponderance of the requirements were functional requirements.
- Most of the stakeholders involved specified requirements for the system to **do** things.
 - Navigate to a point
 - Purchase something
- However some requirements elicited were goals
 - Accessibility for Disability
 - Allowing merchants to advertise
 - Offering Sightseeing routes
- Some non-functional requirements were:
 - Financial information and transaction security
 - Requirement for the app to be “lite” to afford easy use on a cellular data network
 - Requirement for robustness (ability to handle n users, where n may be very large)

■ Performance and Availability	mmf
■ Experience Management	mmf
■ Entertainment	mmf
■ Food & Dining	mmf
■ Hotel Stay	mmf
■ Shopping	mmf
■ Transportation	mmf

From the beginning, several categories were created to afford easy organization.

Requirement Quality

Some requirements were incomplete or ambiguous. By using the Issue/Option functionality, we were able to identify most of the incomplete requirements.

Eg 1



Win Condition (WC_1573): Performance and availabilit...

The application should provide a possibility to download information of particular city/region /country to access it offline.

Agree · Comment · Raise Issue/Concern/Risk

Jeton Memeti, Arthur Toenz, MrRSharp, Nikita Shah *agree to this*
(Marked for potential agreement by shaper)



Issue (Iss_919):

Keep in mind, however, that this app is for the city of Zurich. I do agree with the requirement for offline functionality. Not every tourist will have a data connection.

Close Issue · Comment · Suggest Option/Alternative(s)

MrRSharp



Win Condition (WC_1631): Experience Management Performance and Availability
The application should allow users to download information, such as maps, for offline access.

Disagree · Comment · Raise Issue/Concern/Risk

You *agree to this*

Moderator

Requirement Quality

Eg 2



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MrRSharp



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[Agree](#) · [Comment](#)



Win Condition (WC_1632): Transportation Experience Management

The application must be able to locate locations using mapping technology and/or Augmented Reality technology

[Disagree](#) · [Comment](#) · [Raise Issue/Concern/Risk](#)

You agree to this

Moderator

Negotiations & Convergence

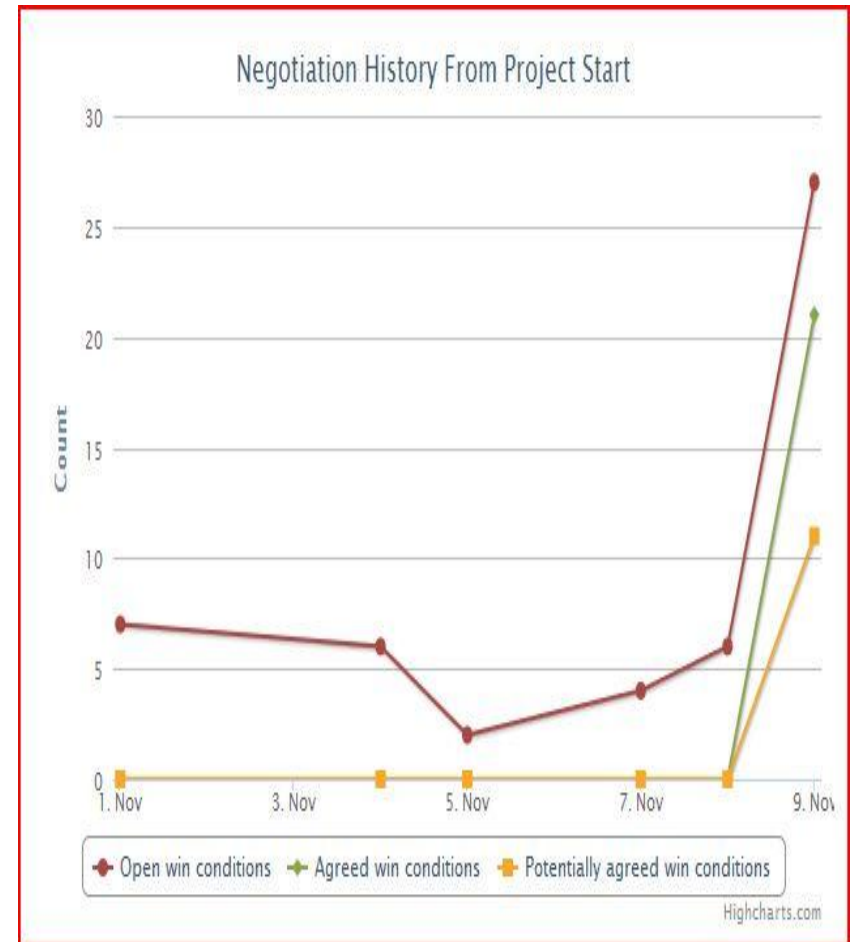
- Negotiation was broken into several phases
- Requirement Elicitation- Stakeholders added their requirements to the model
- Reflection- Comments/Issues/Risks were discussed for existing requirements
- Requirement Management- requirements were ranked, reworded, or deleted
- New Requirement Elicitation- identified missing requirements were added to the model
- Requirement Confirmation- Elicited and discussed requirements were agreed upon for the model.

Moderate amount of negotiation took place.

Requirements, such as the GPS navigation requirement, provoked significant discussion, while other requirements gained broad acceptance very quickly.

Discussion over time..

- Most of the requirements were elicited in the first 2 days. From that point the discussion evolved from elicitation of new requirements to discussion of proposed requirements. After some discussion and some management of agreed-upon requirements (rewording/deleting/combining), a new round of elicitation began, focusing on missing requirements.
- After some time, these requirements were confirmed.



WinBook Tool

Likes:

- Facebook/Gmail interface afforded some level of familiarity
- This has the potential to be a very valuable tool
- GUI provided useful advantages over natural-language models, while still incorporating N/L
 - speed of identifying issues (color-coding)
 - visual structuring (discussions appeared inline with win conditions)
- High level of flexibility

Dislikes:

- Despite familiar interface, there still was a learning curve
- This tool is still in its infancy
- Very hard to manipulate win conditions once input into the system
 - Could not re-word WC's
 - Could not merge WC's
 - The ONLY option was to delete & replace
 - History is lost when Win conditions are deleted.
- No representation of interdependency between WC's
 - AND/OR/XOR
 - sub/super conditions
 - Because of this, dependent requirements were ranked independently of the requirements upon which they depended!
- 'God'-erator?
 - Moderator has too much power- no checks and balances from everyone else
 - Anything the stakeholders input can be overridden by the Moderator

WinBook Tool- contd

Opportunities for Improvement:

- Allow more structuring of requirements for dependency & hierarchy
- Win Conditions must be easier to alter
- Create a vehicle where stakeholders can dialogue about the project, in general, without having to input WC's, issues, or options. The moderator could have the functionality to elicit requirements from this process.

Application

- Soft conflict strategies are being used by a super-majority of stakeholders.
- Stakeholders are distributed over large distances where it would be costly or impractical to bring everyone together
- Stakeholders have conflicting time constraints, where it would be costly or impractical to bring everyone together
- Stakeholders are both conflicted in time and distance.
- There is significant time for stakeholders to participate, such that good requirements may be elicited.

Favorite Requirements



Win Condition (WC_1630): Entertainment Transportation

While on the road, if you point on an interesting building..the app should be able to say What it is and What's going on there. For example..if someone points on Kunsthaus on Wednesday..it should say that it is the most famous art museum of Zurich and has a free entry today!!!

Disagree · Comment · Raise Issue/Concern/Risk

You agree to this



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