

Seoul, South Korea

Storytelling Technique for Building Use-case Scenarios for Design Development

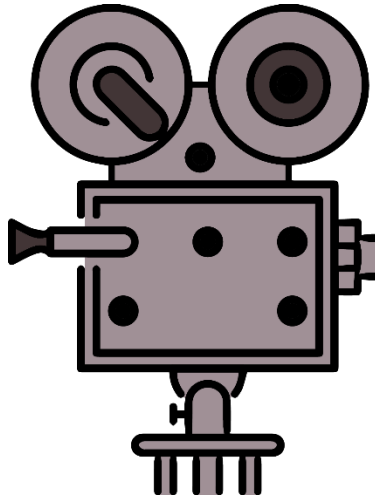
Sukwoo Jang, Ki-Young Nam

KAIST

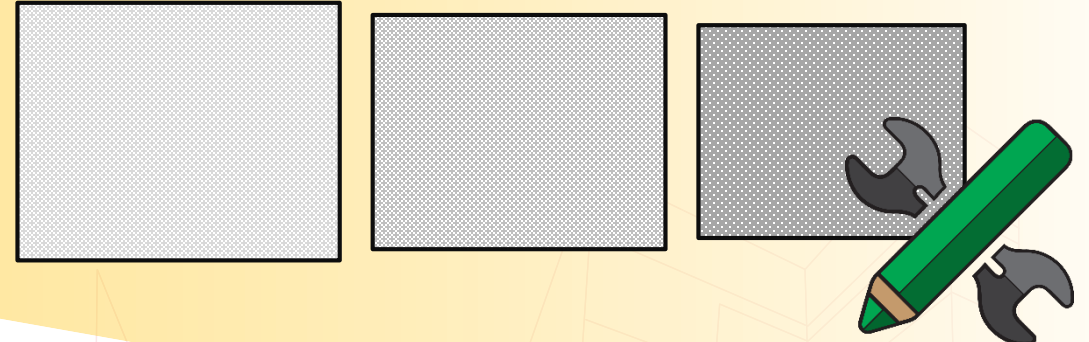
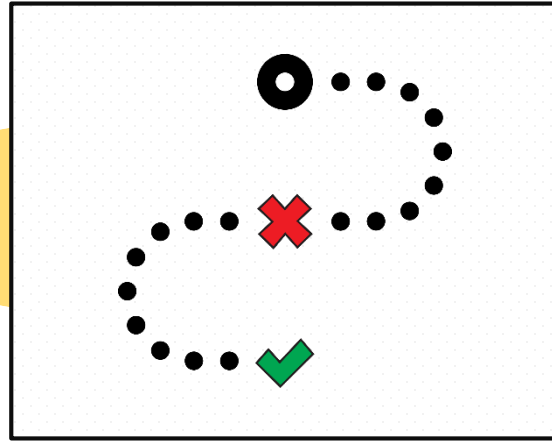


Overview

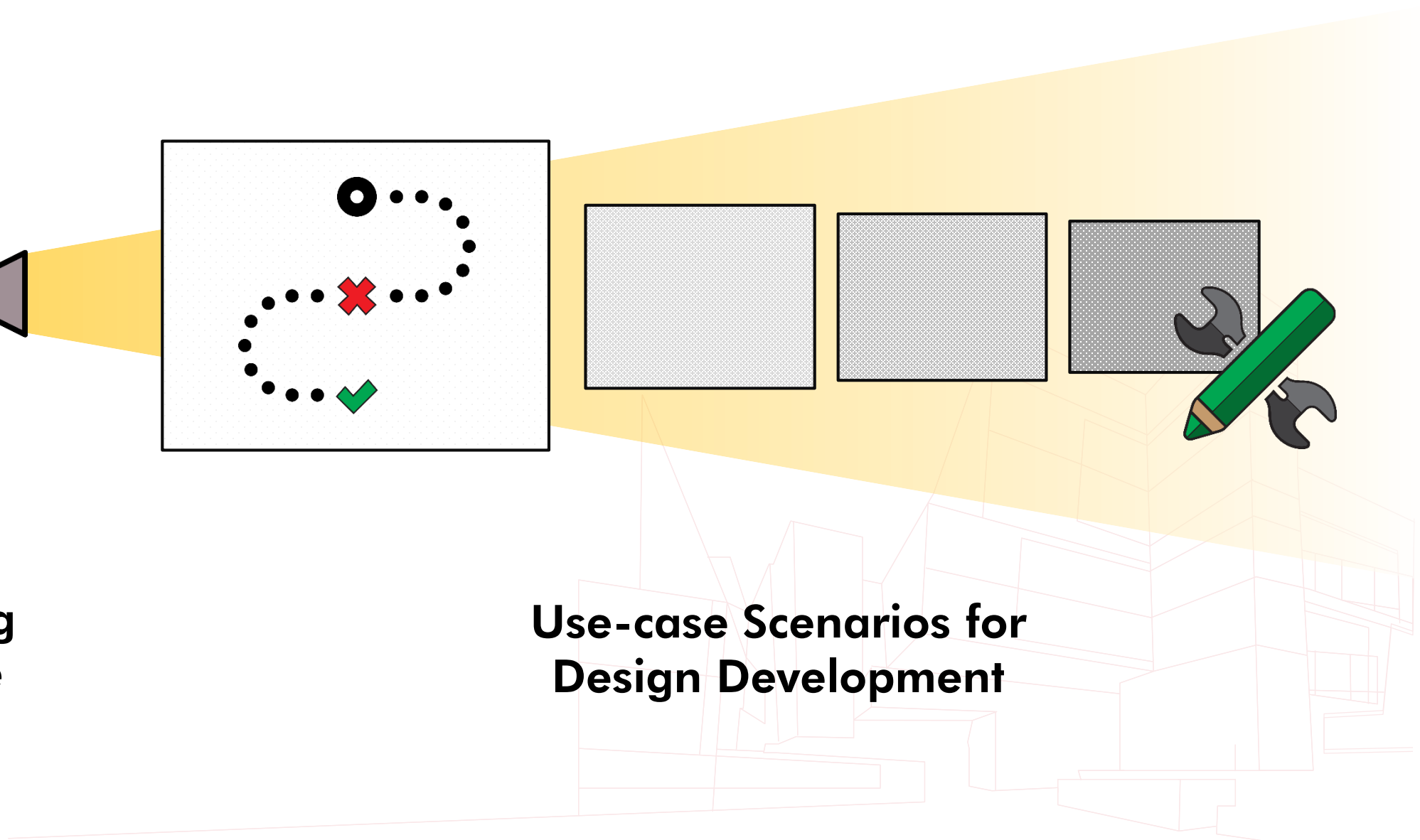




**Storytelling
Technique**



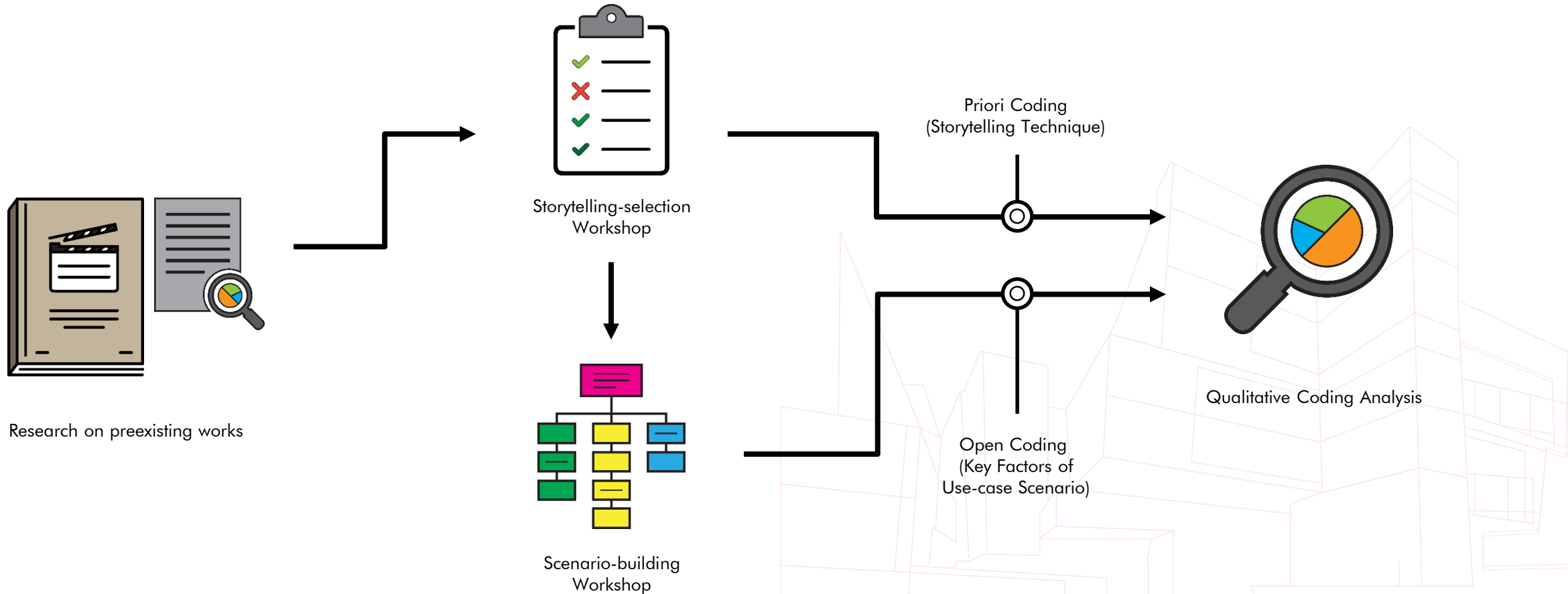
**Use-case Scenarios for
Design Development**



□ Research Process

1. Literature Review

2. Empirical Research

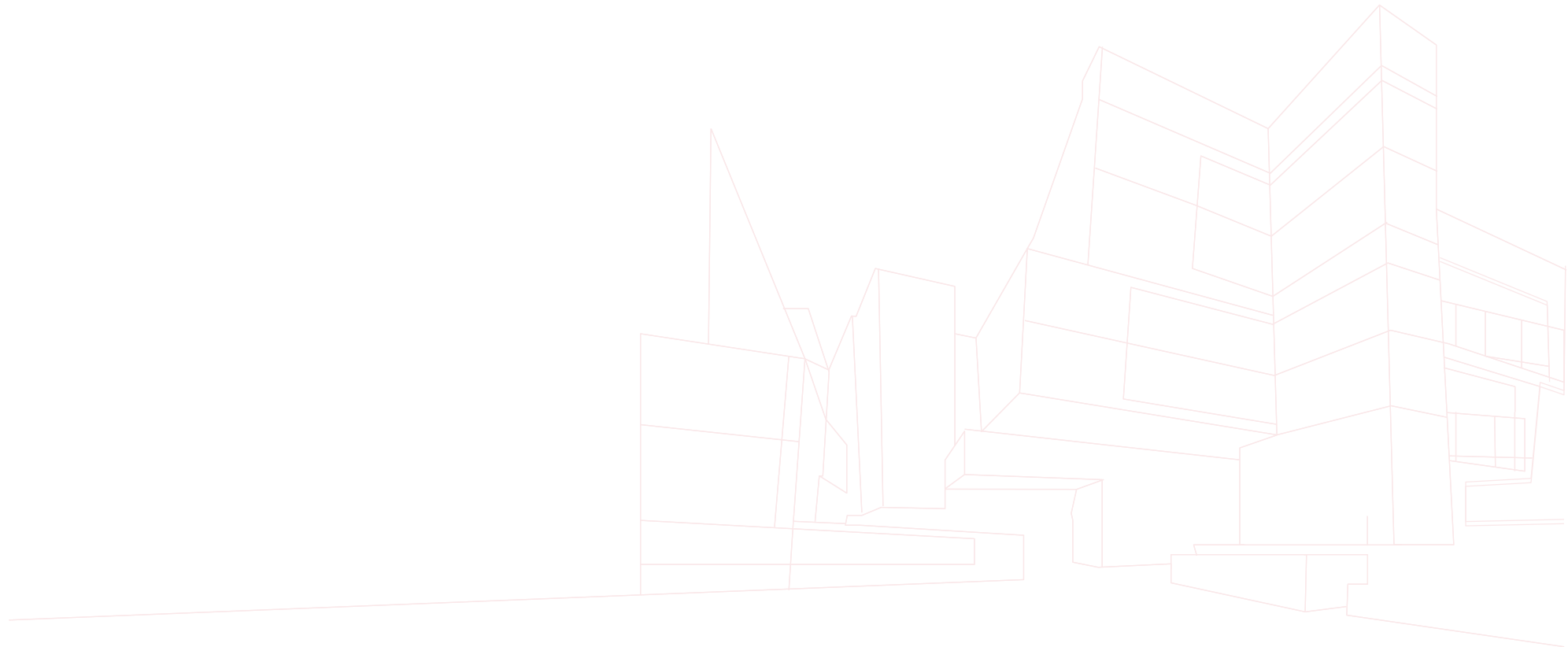


Research Opportunity



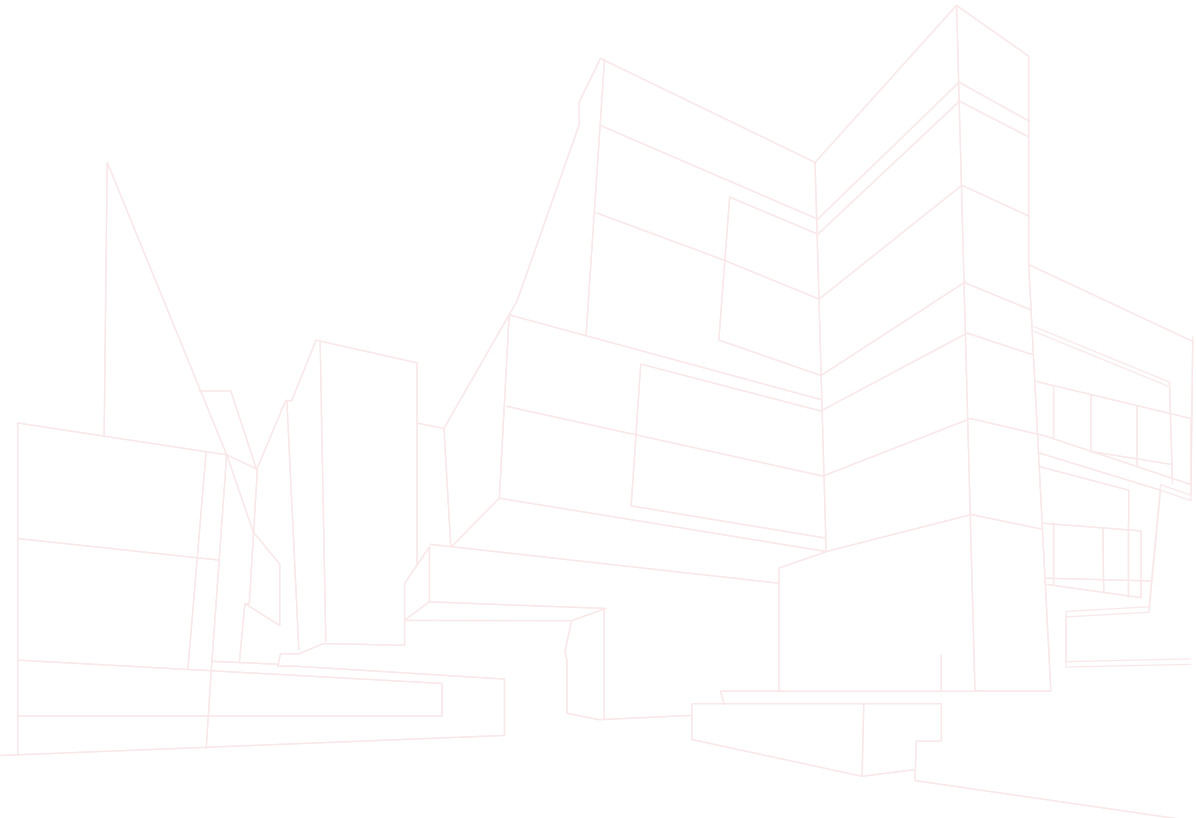
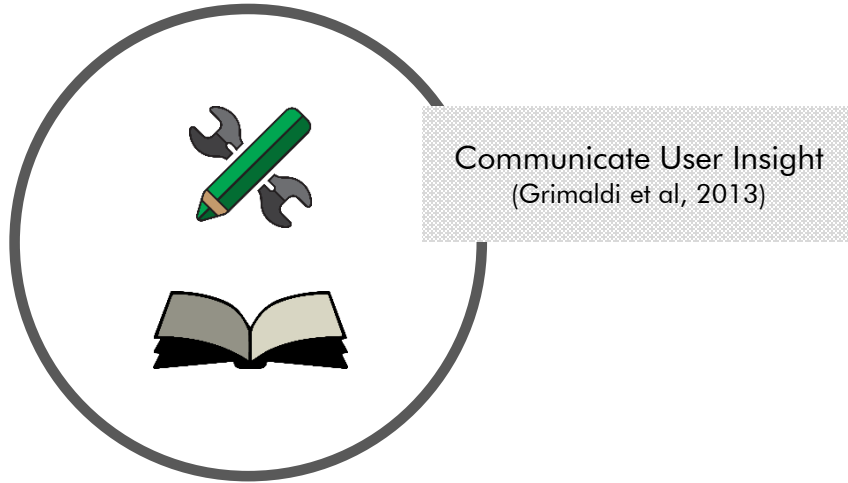
□ Research Aim and Research Gap

To investigate how the functions of storytelling technique can help build use-case scenarios on a more detailed and holistic level.



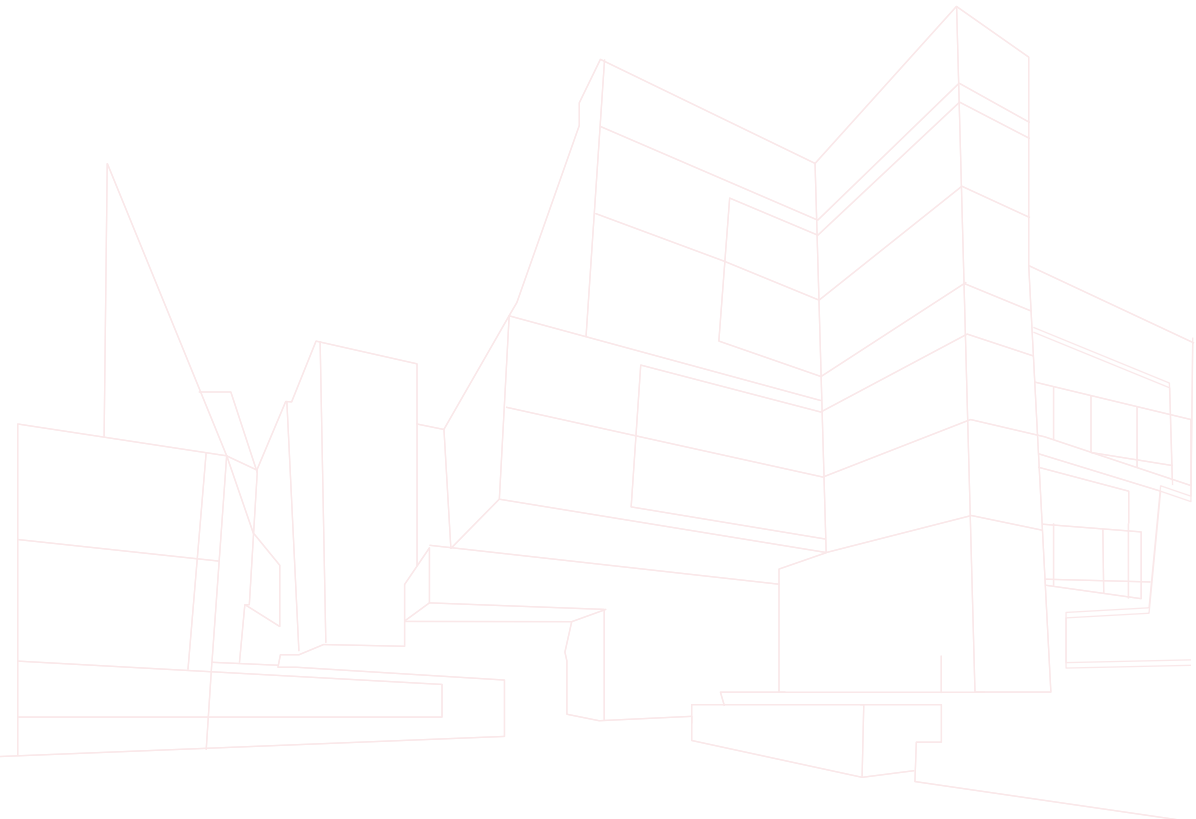
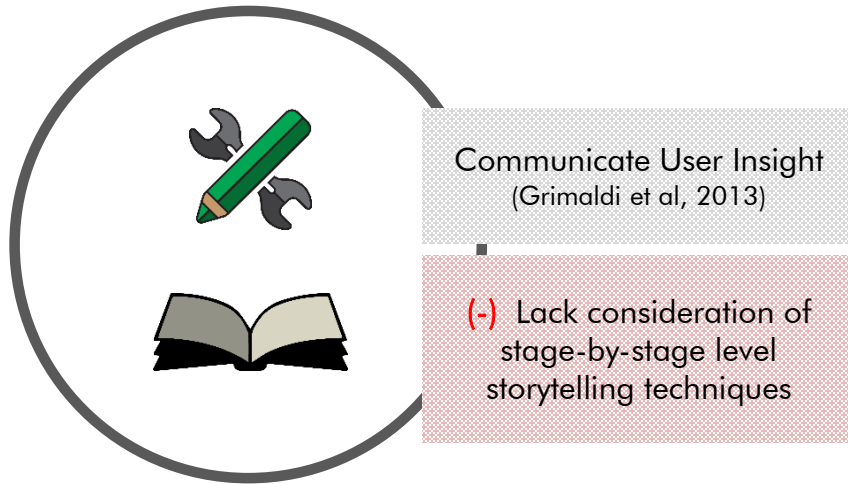
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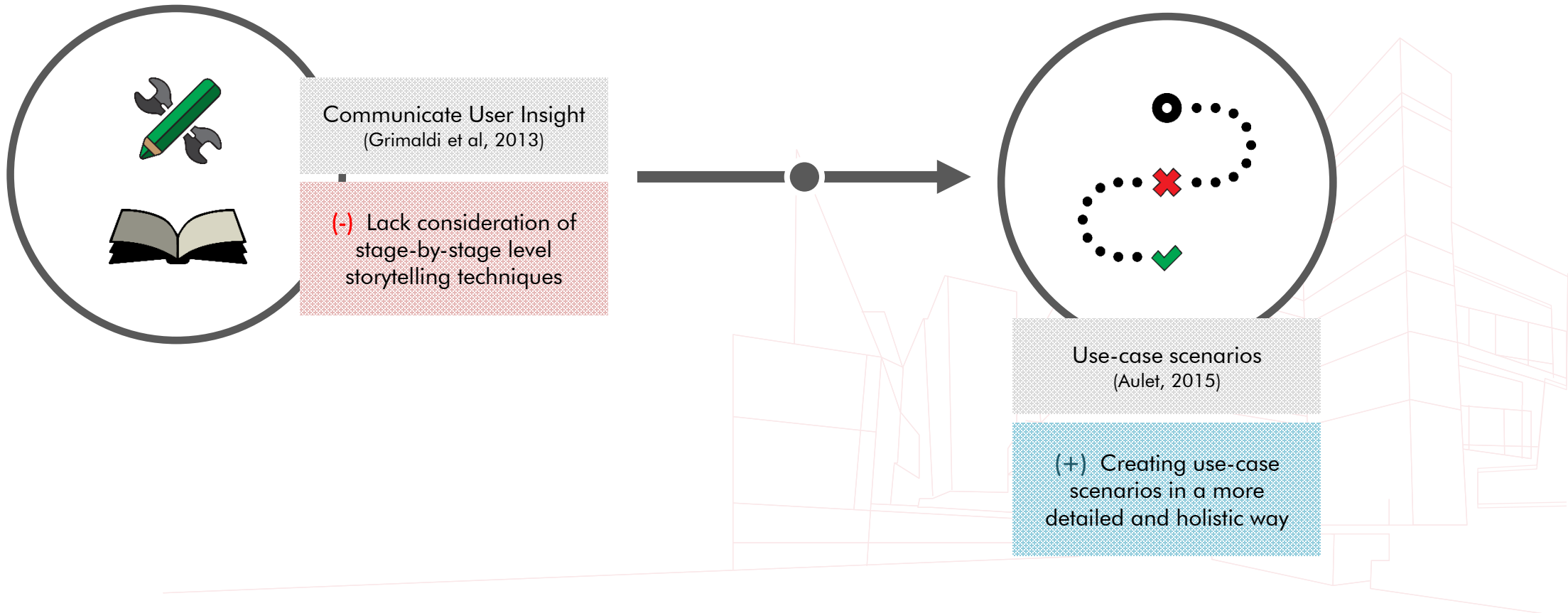
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□ Research Aim and Research Gap

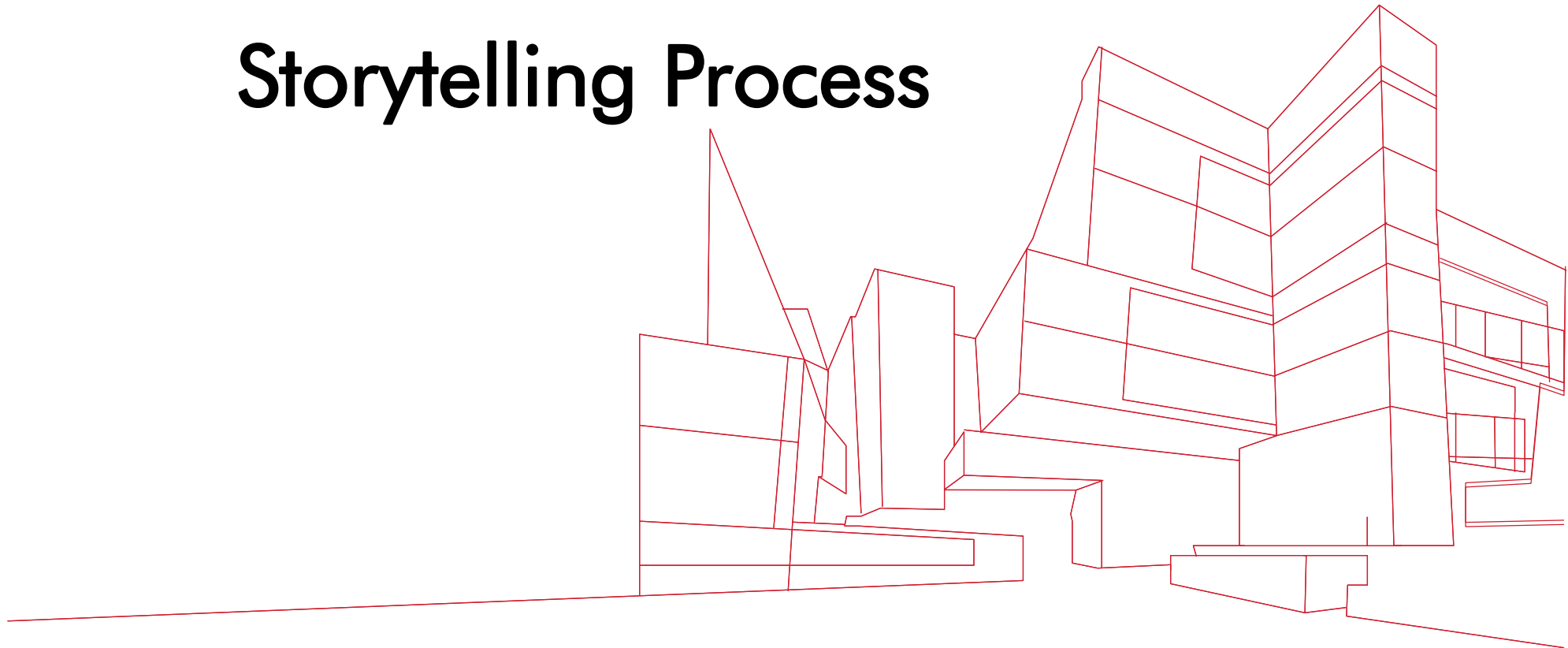
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Storytelling techniques for use-case scenarios

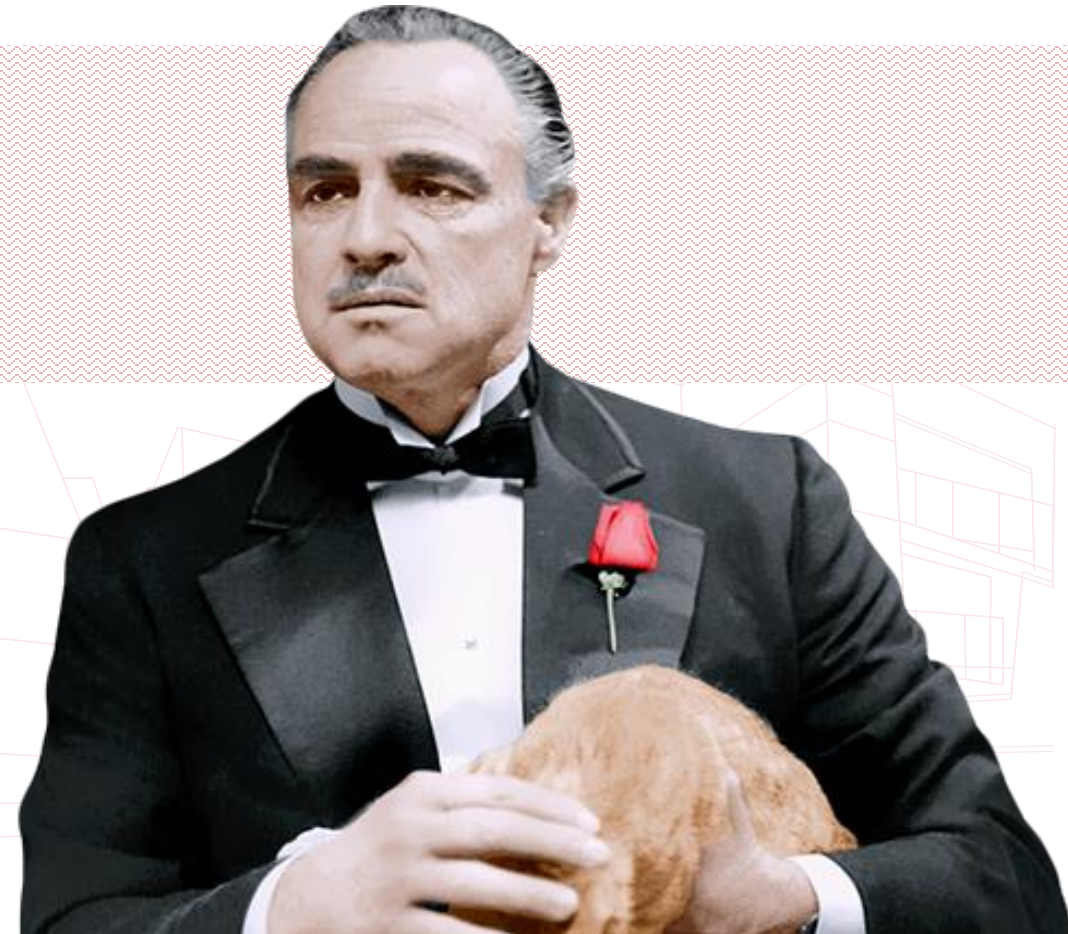


Storytelling Process



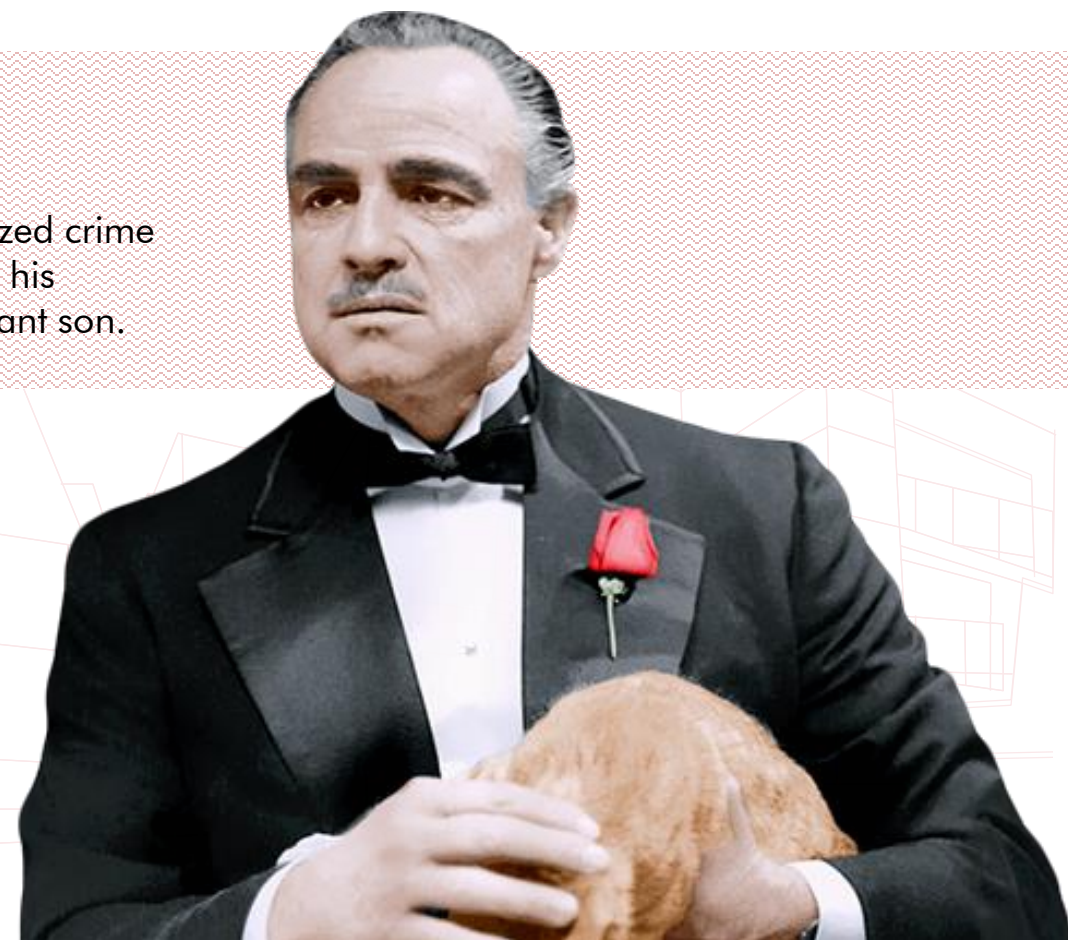
1. Idea

An aging patriarch



2. Logline

The aging patriarch of an organized crime dynasty transfers control of his clandestine empire to his reluctant son.



☐ Process of Storytelling



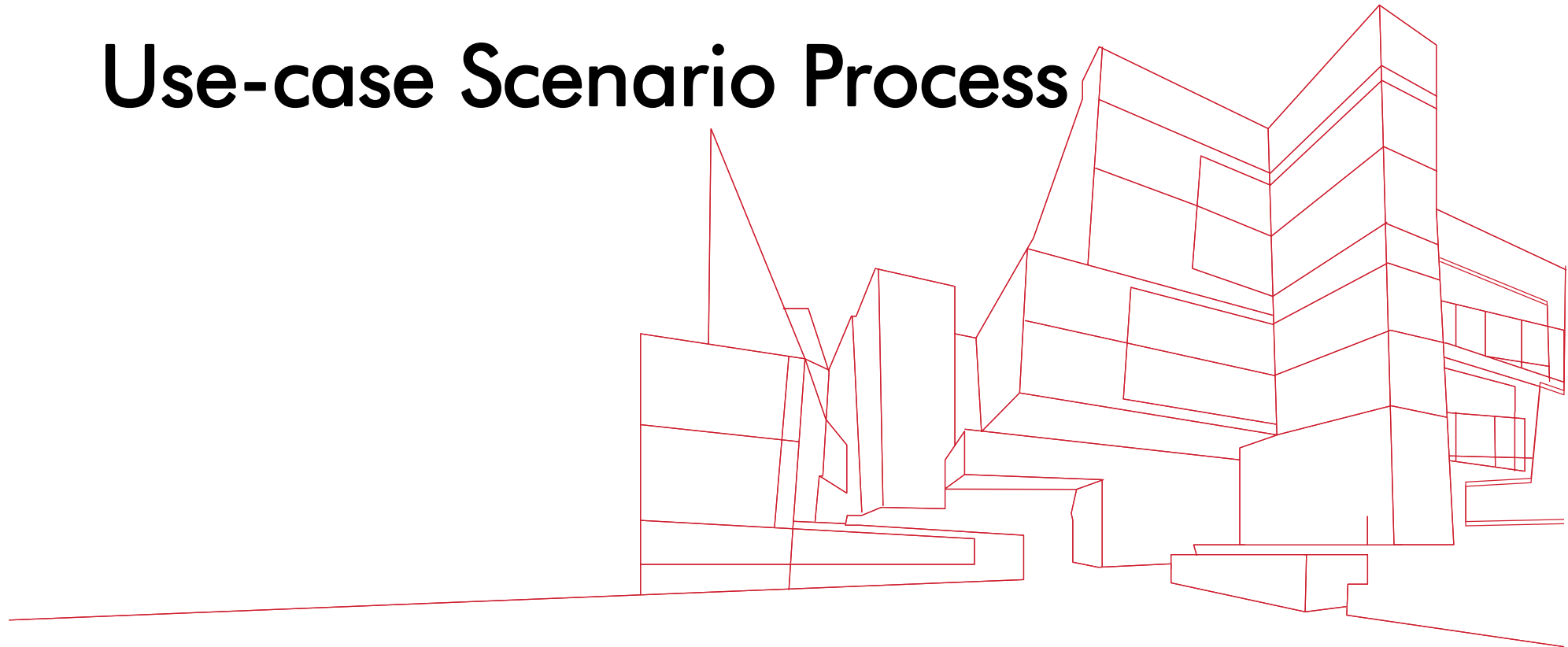
3. Plot



4. Change of protagonist



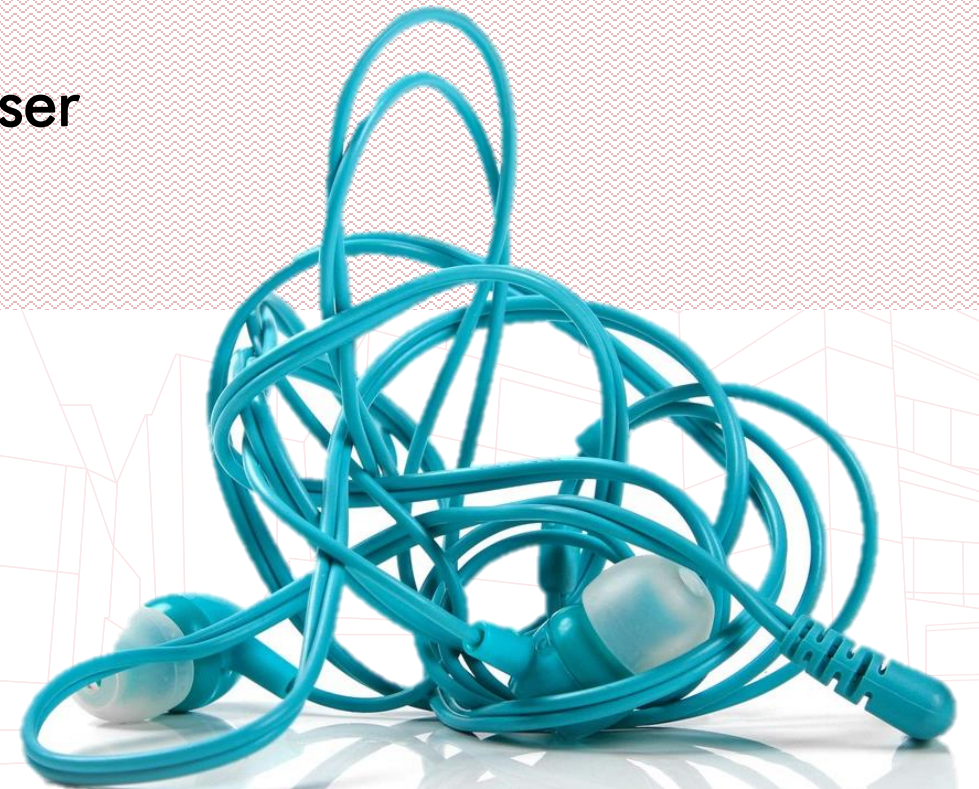
Use-case Scenario Process



1. Phenomena



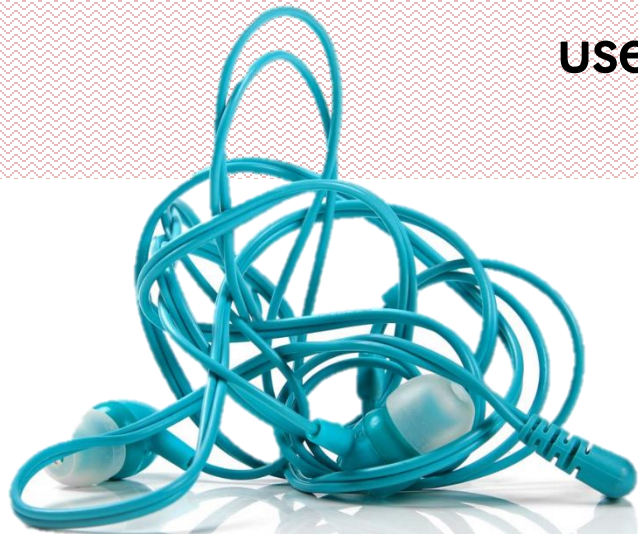
2. Definition of target user and design problem



3. User-product interaction



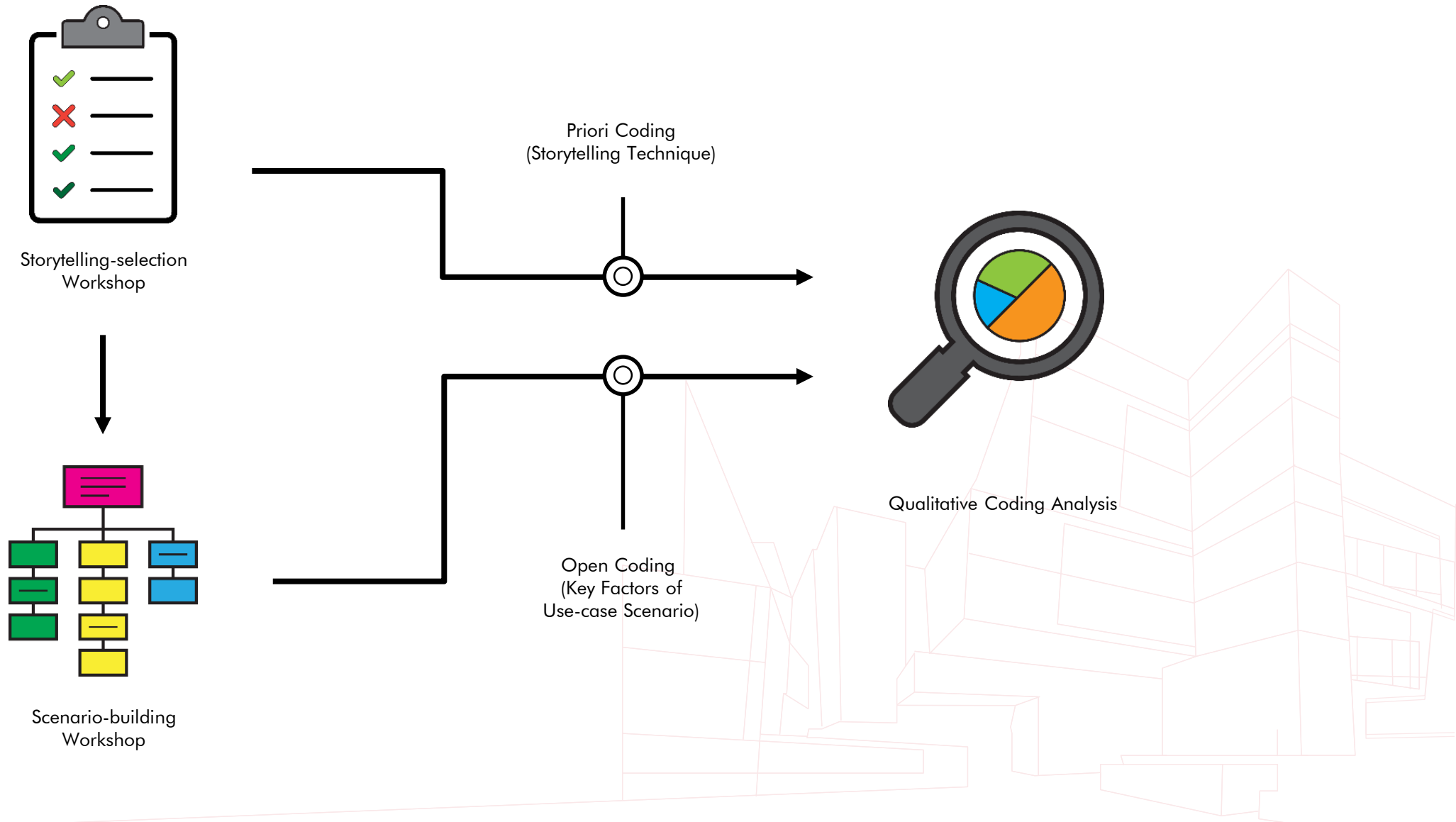
4. Change of user (life/experience)



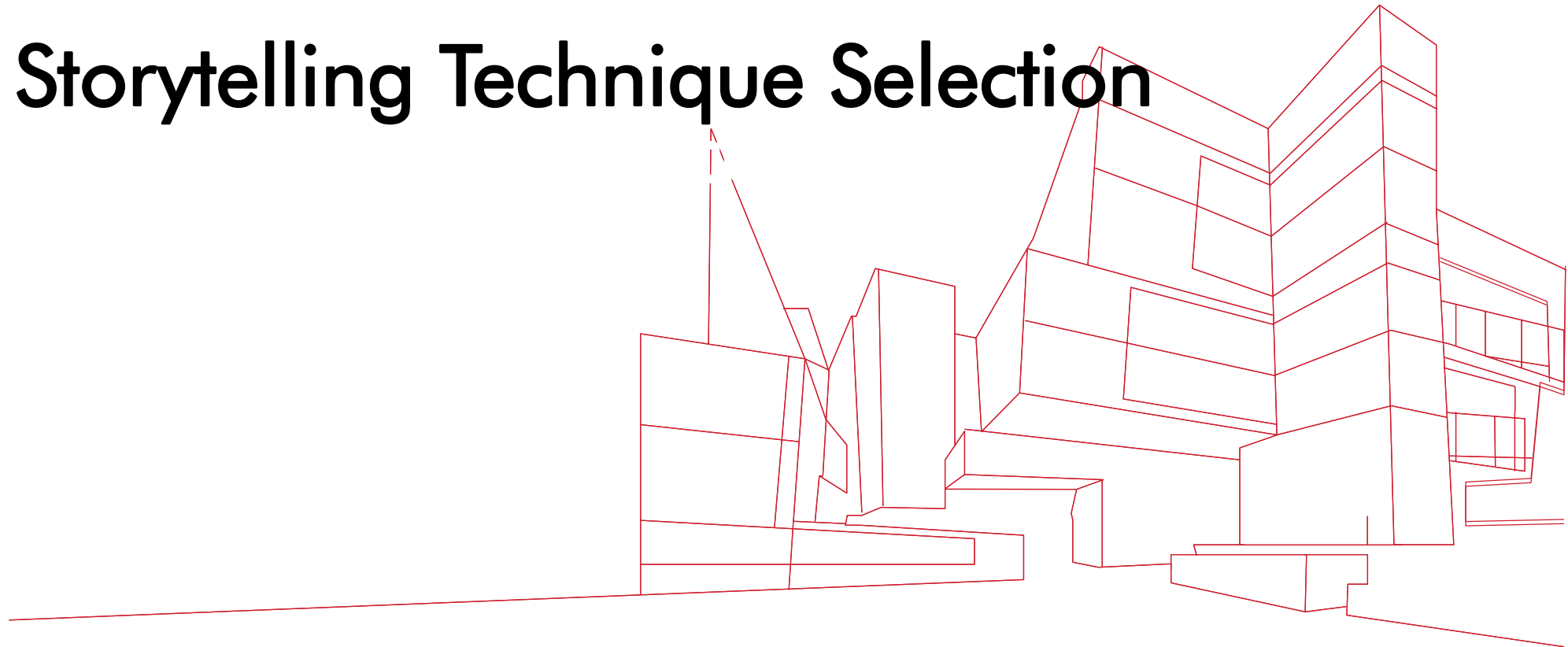
Empirical Research



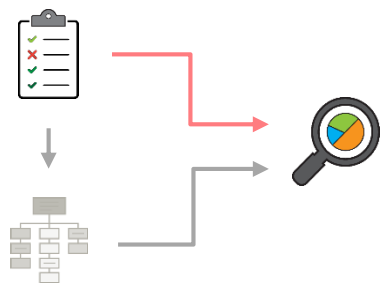
□ Process of Empirical Research



Storytelling Technique Selection



☐ Storytelling Techniques

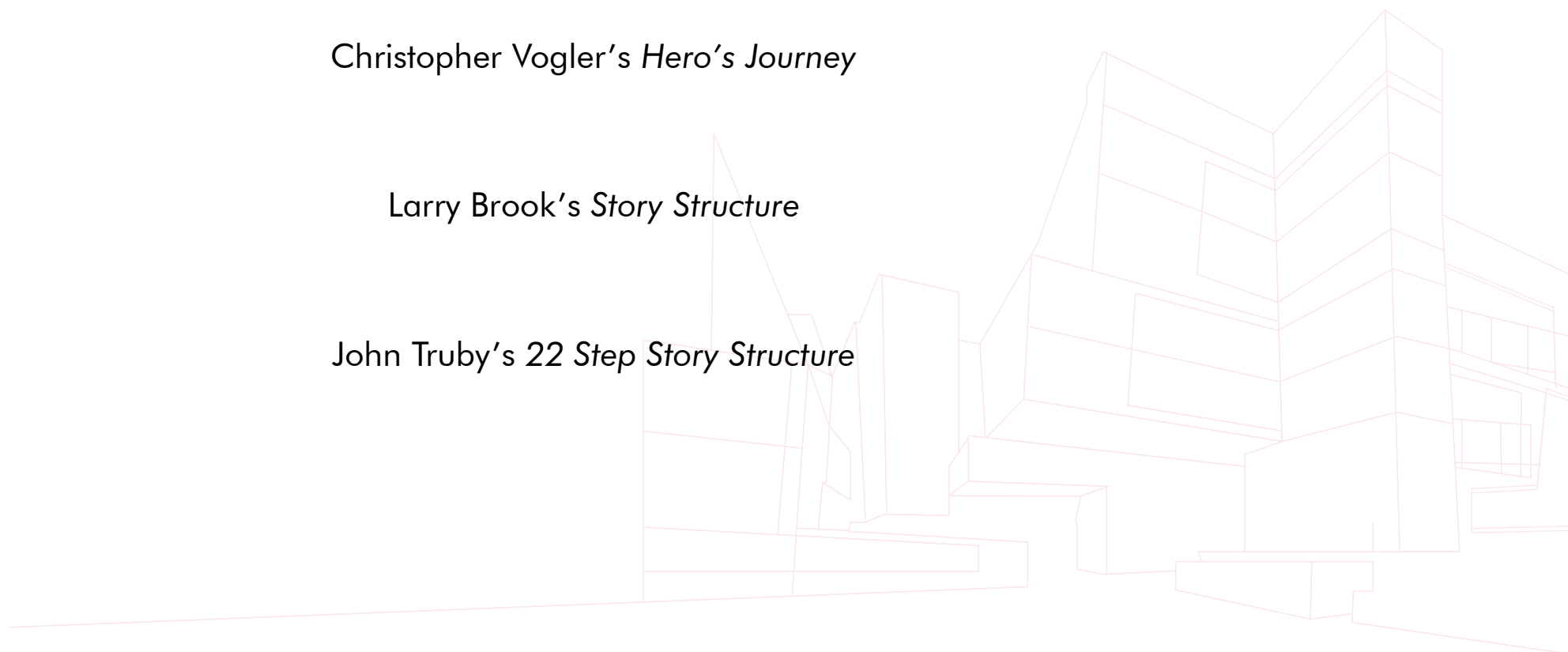


Blake Snyder's *Beat Sheet*

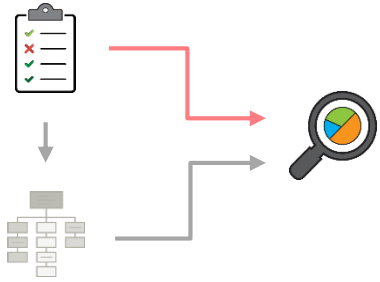
Christopher Vogler's *Hero's Journey*

Larry Brook's *Story Structure*

John Truby's *22 Step Story Structure*



☐ Storytelling Techniques



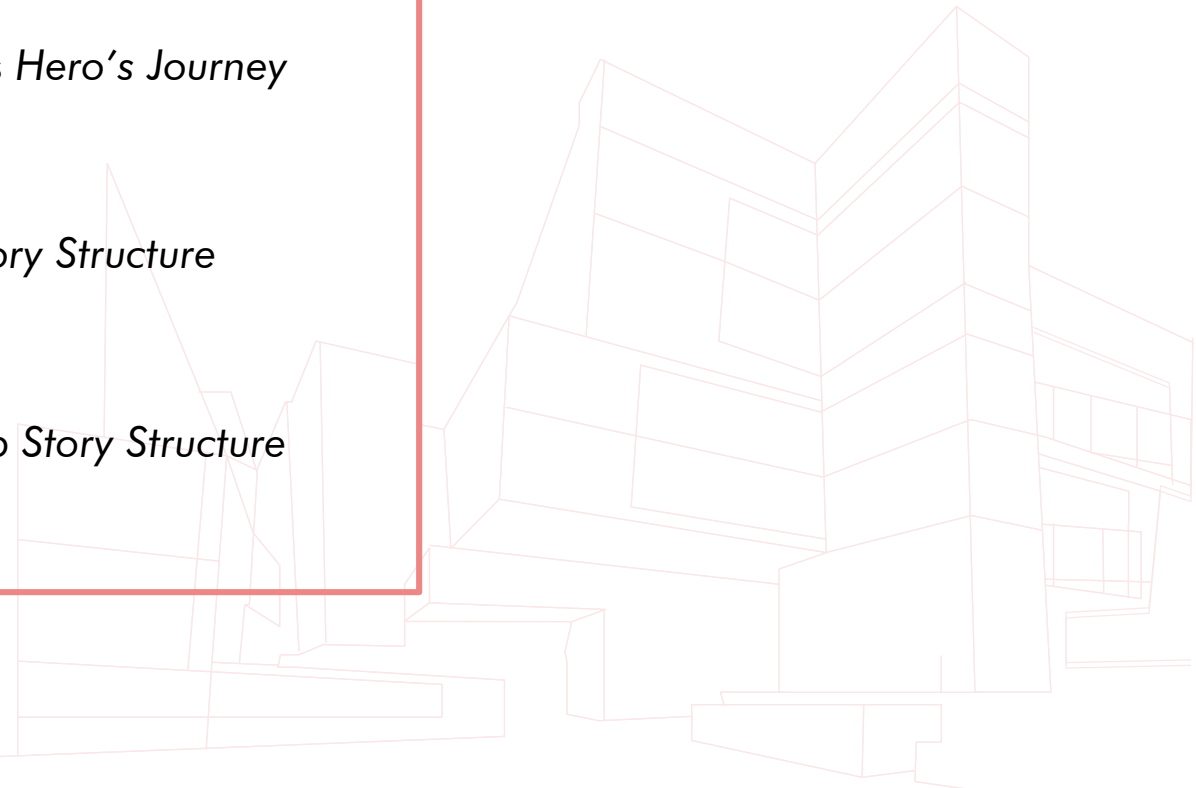
Narrative Theory

Blake Snyder's *Beat Sheet*

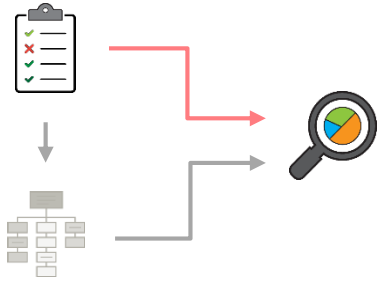
Christopher Vogler's *Hero's Journey*

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□ Storytelling Techniques



Narrative Theory

Story Centered

Blake Snyder's *Beat Sheet*

Hero Centered

Christopher Vogler's *Hero's Journey*

Hero Centered

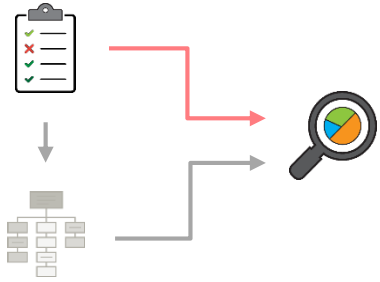
Larry Brook's *Story Structure*

Story + Hero Centered

John Truby's *22 Step Story Structure*



□ Storytelling Techniques



Narrative Theory

Story Centered

Blake Snyder's *Beat Sheet*

Hero Centered

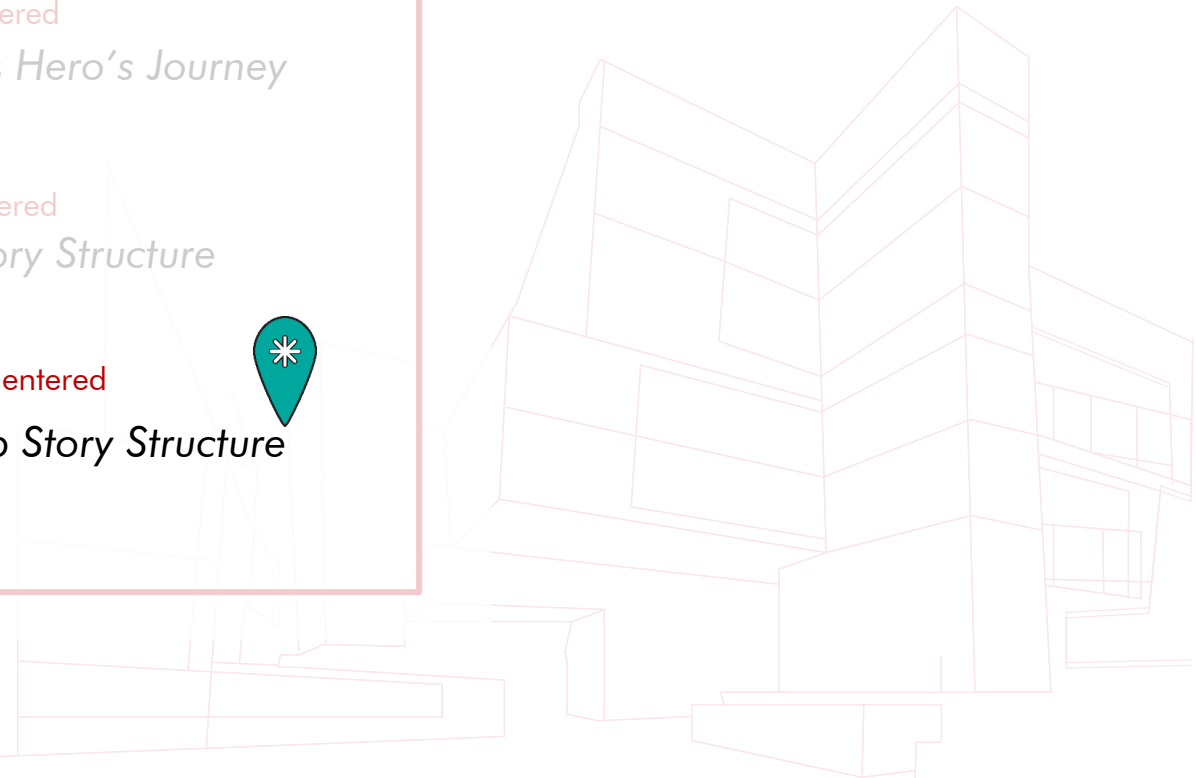
Christopher Vogler's *Hero's Journey*

Hero Centered

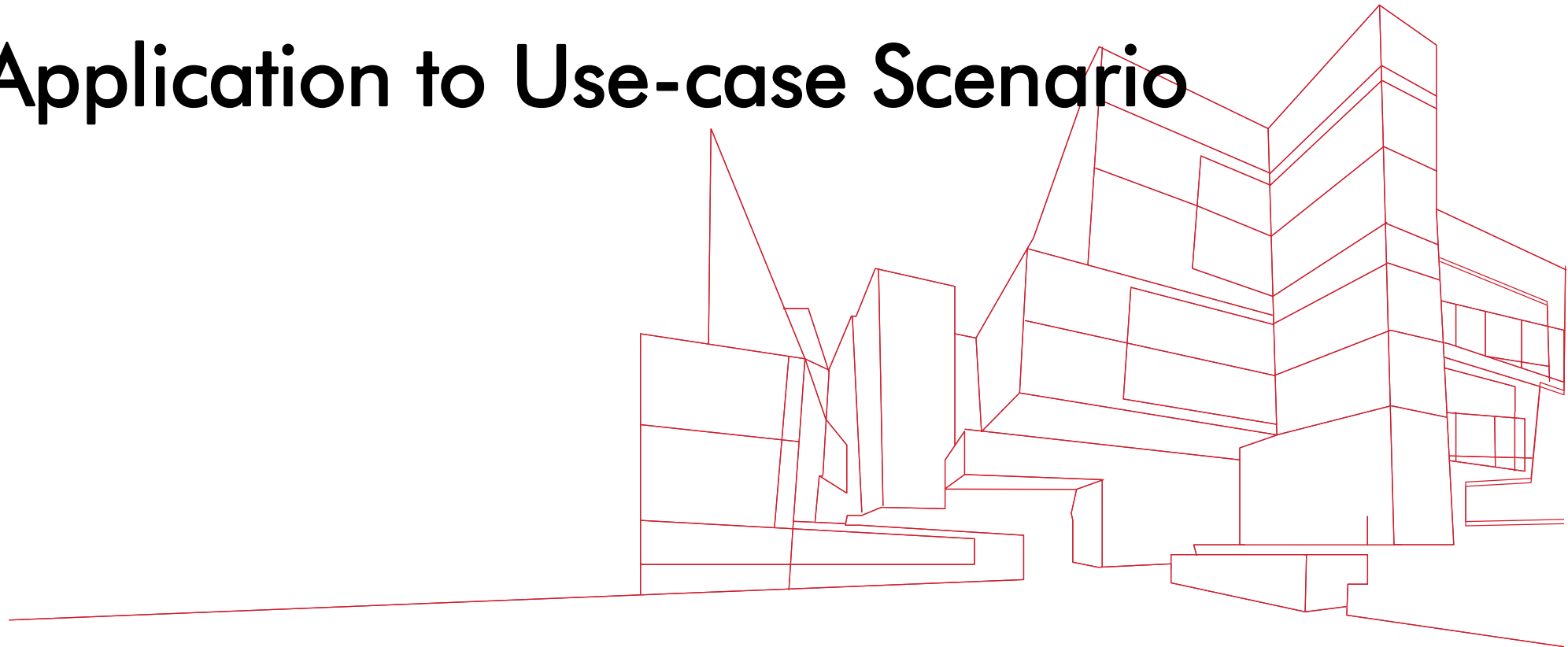
Larry Brook's *Story Structure*

Story + Hero Centered

John Truby's *22 Step Story Structure*



Application to Use-case Scenario



Insight 1-1

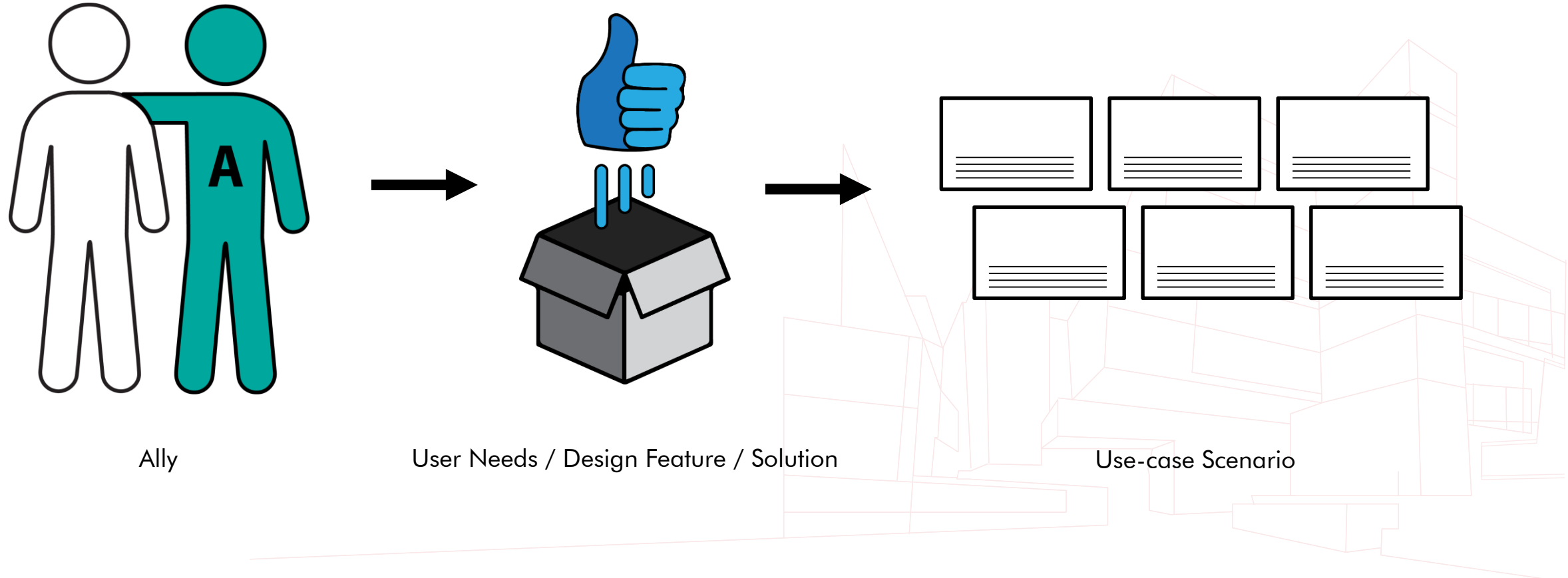
'Ally' can be used to portray design features of the solution which fulfills user needs in use-case scenarios



Scenes from *The Godfather* | Allies : Michael has his father (Don Corleone); his brothers; Tom; and his wife, Kay etc.

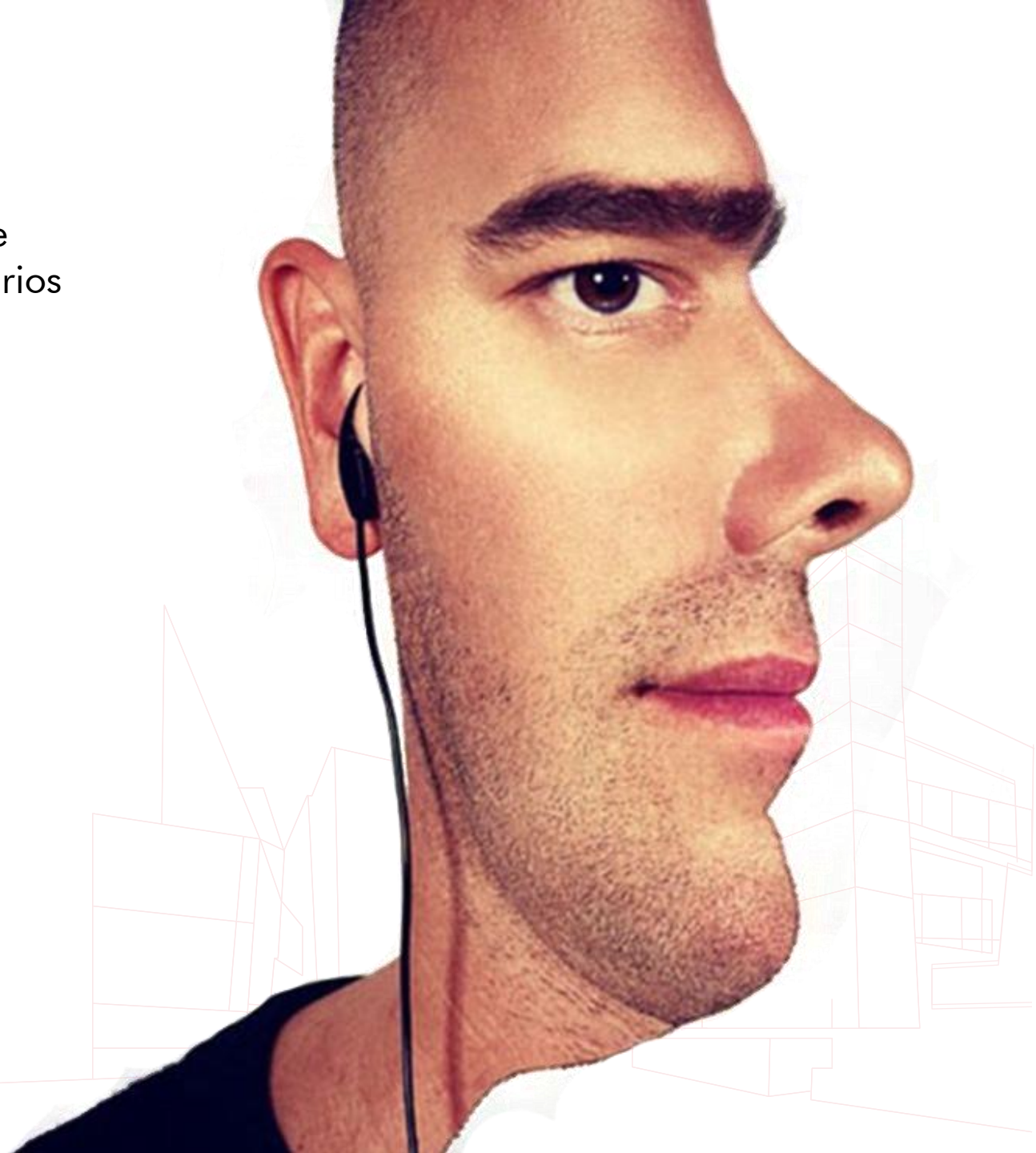
Insight 1-1

'Ally' can be used to portray design features of the solution which fulfills user needs in use-case scenarios



Insight 1-1

'Ally' can be used to portray design features of the solution which fulfills user needs in use-case scenarios



Insight 1-2

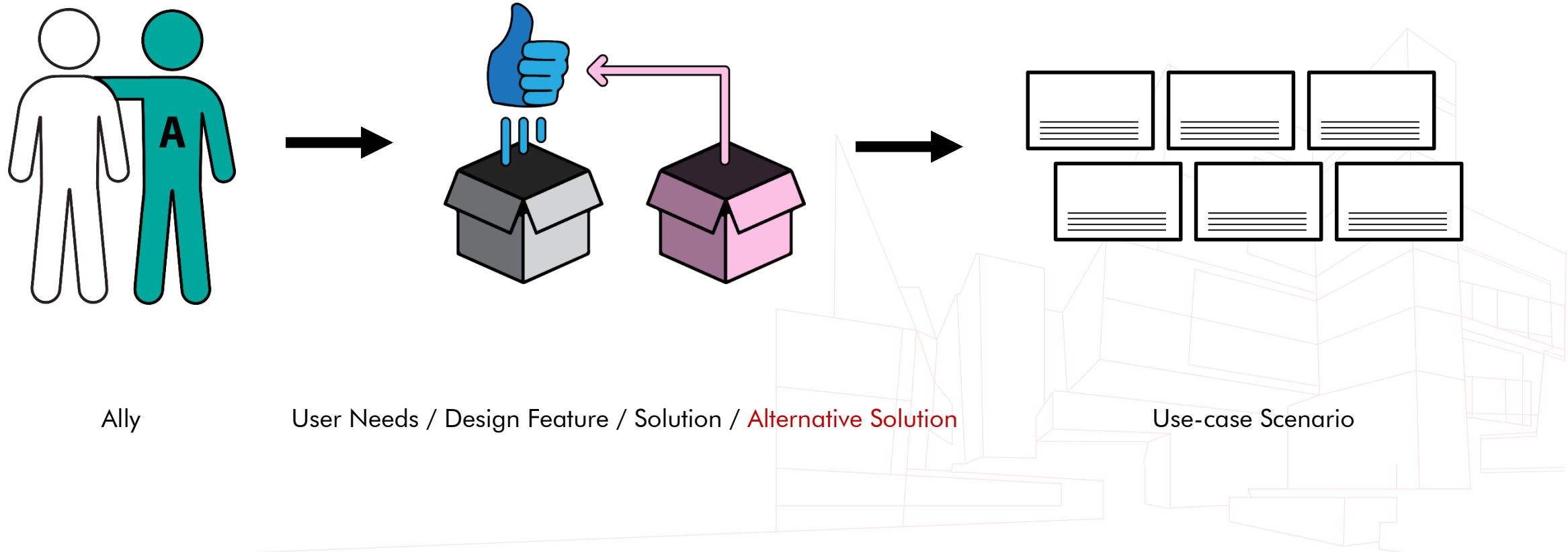
'Attack by ally' : 1) To investigate which design features need improvement
2) Competitors' solution which can be benchmarked



Scenes from *The Godfather* | Attack by Ally : Kay criticizes Michael for working for his father.

Insight 1-2

'Attack by ally' : 1) To investigate which design features need improvement
2) Competitors' solution which can be benchmarked



Insight 1-2

'Attack by ally'

- 1) To investigate which design features need improvement
- 2) Competitors' solution which can be benchmarked



Insight 2

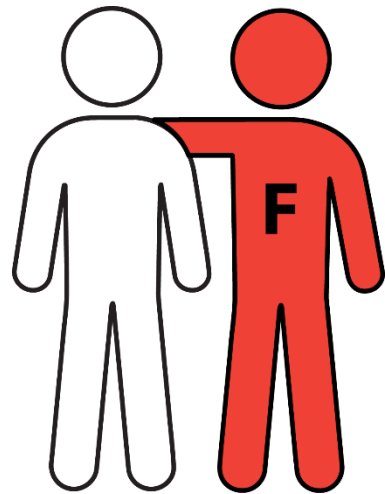
'Fake-ally opponent' can be used to deal with overcoming user inertia for building use-case scenarios



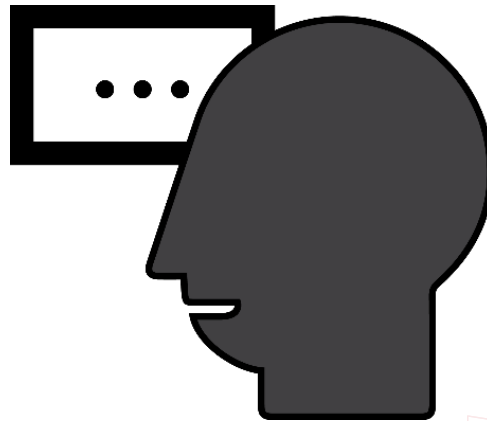
Scenes from *The Godfather* | Fake-ally Opponent : Sicilian bodyguard who tries to kill Michael, but blows up his wife instead.

Insight 2

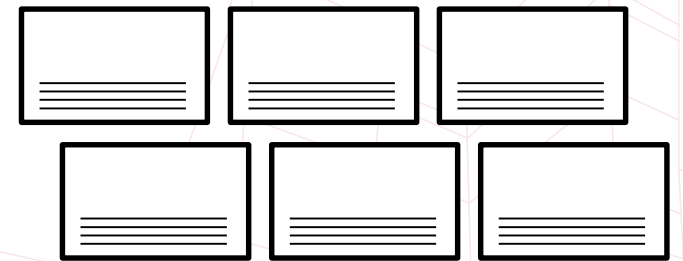
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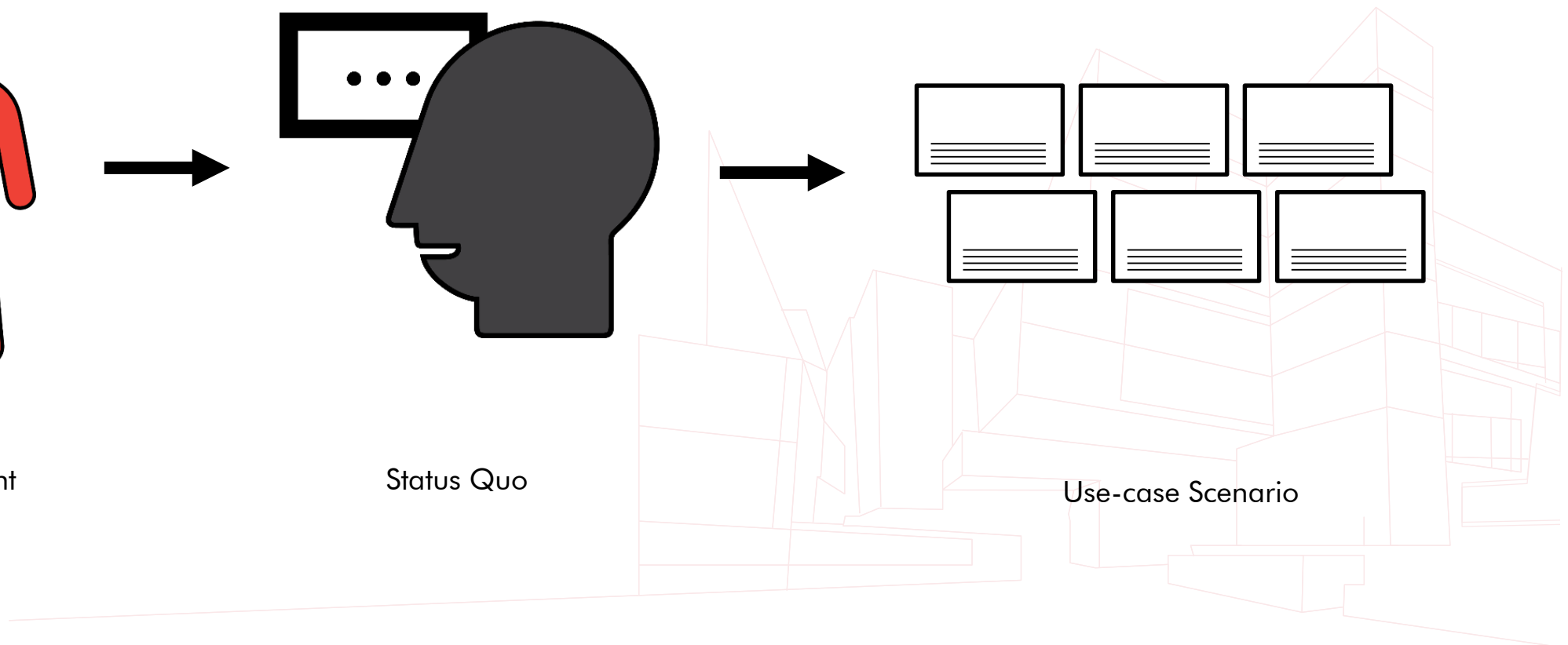
Fake-ally Opponent



Status Quo



Use-case Scenario



Insight 2

'Fake-ally opponent' can be used to deal with overcoming user inertia for building use-case scenarios



Insight 3

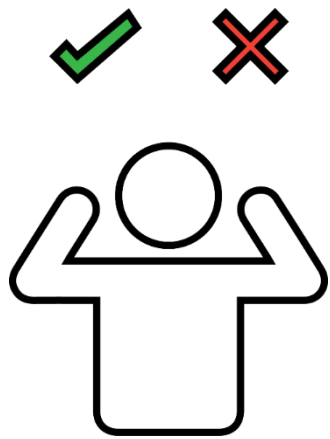
'Moral decision' can be employed to depict the user's perception of a design based on social and political values.



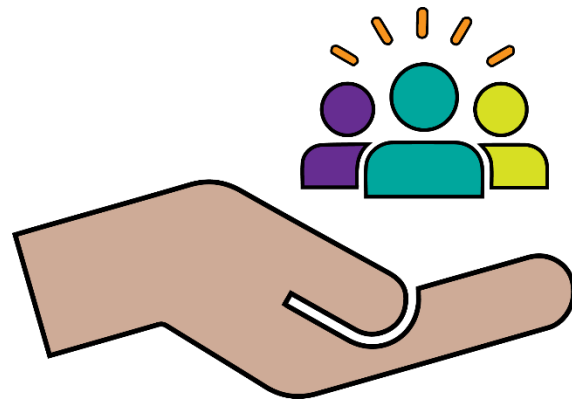
Scenes from *The Godfather* | 'Moral Decision' : Michael's moral decision is when he decides to kill of his rivals and his brother-in-law after becoming an actual godfather to the man's child.

Insight 3

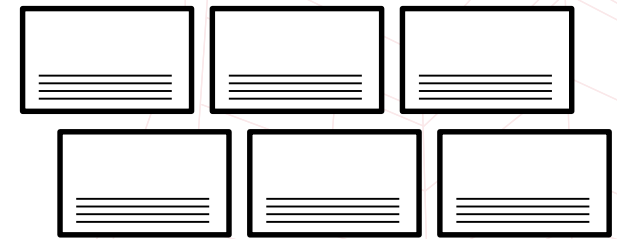
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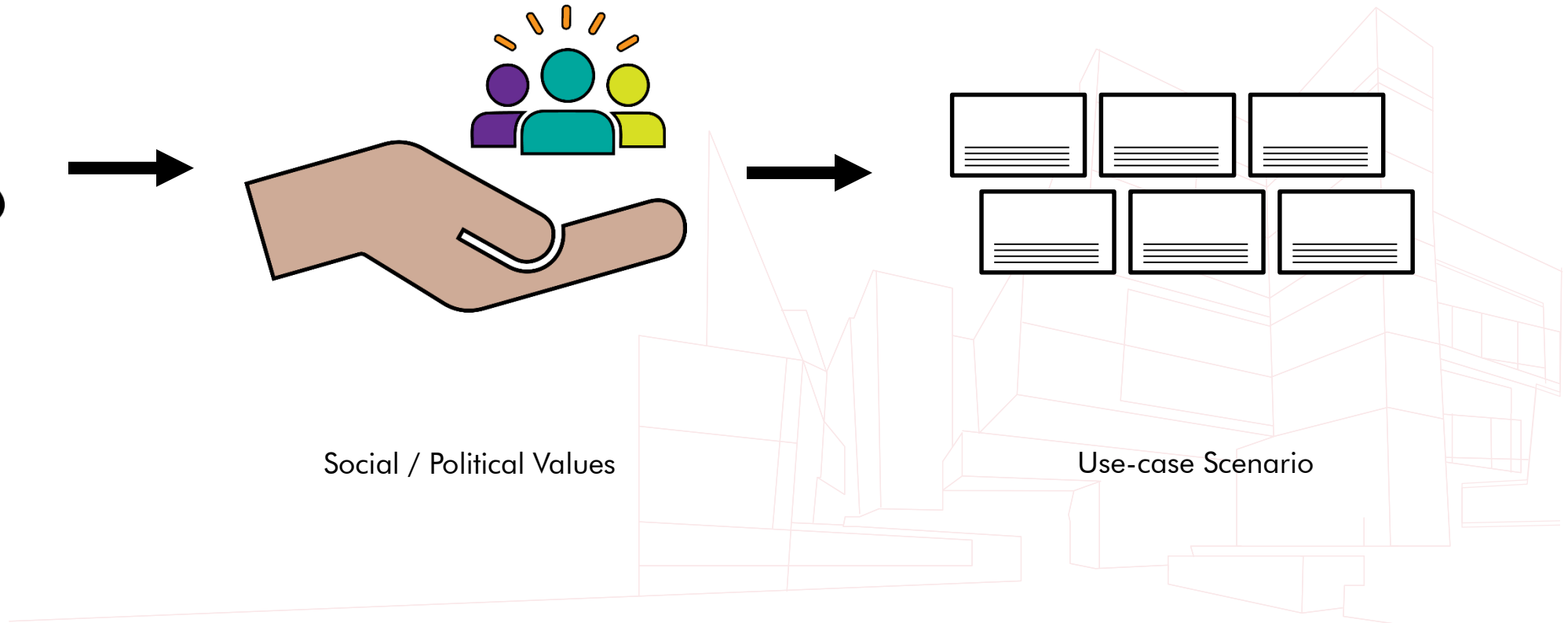
Moral Decision



Social / Political Values



Use-case Scenario



Insight 3

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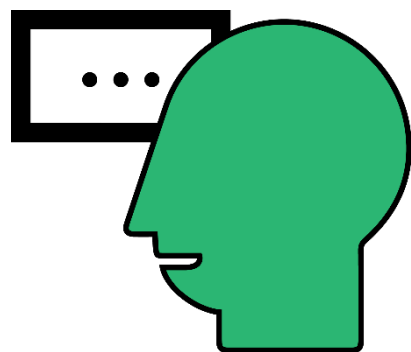


Conclusion & Contribution

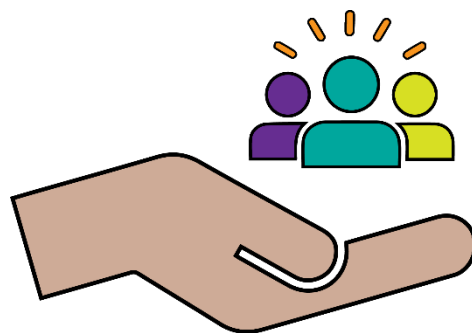


□ Conclusion

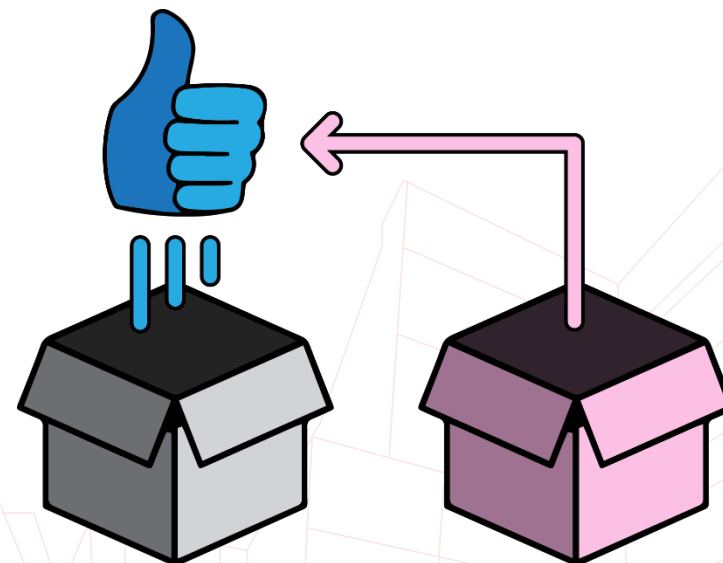
Storytelling techniques on a stage-by-stage level :
Detailed and holistic use-case scenario for design development



Status Quo



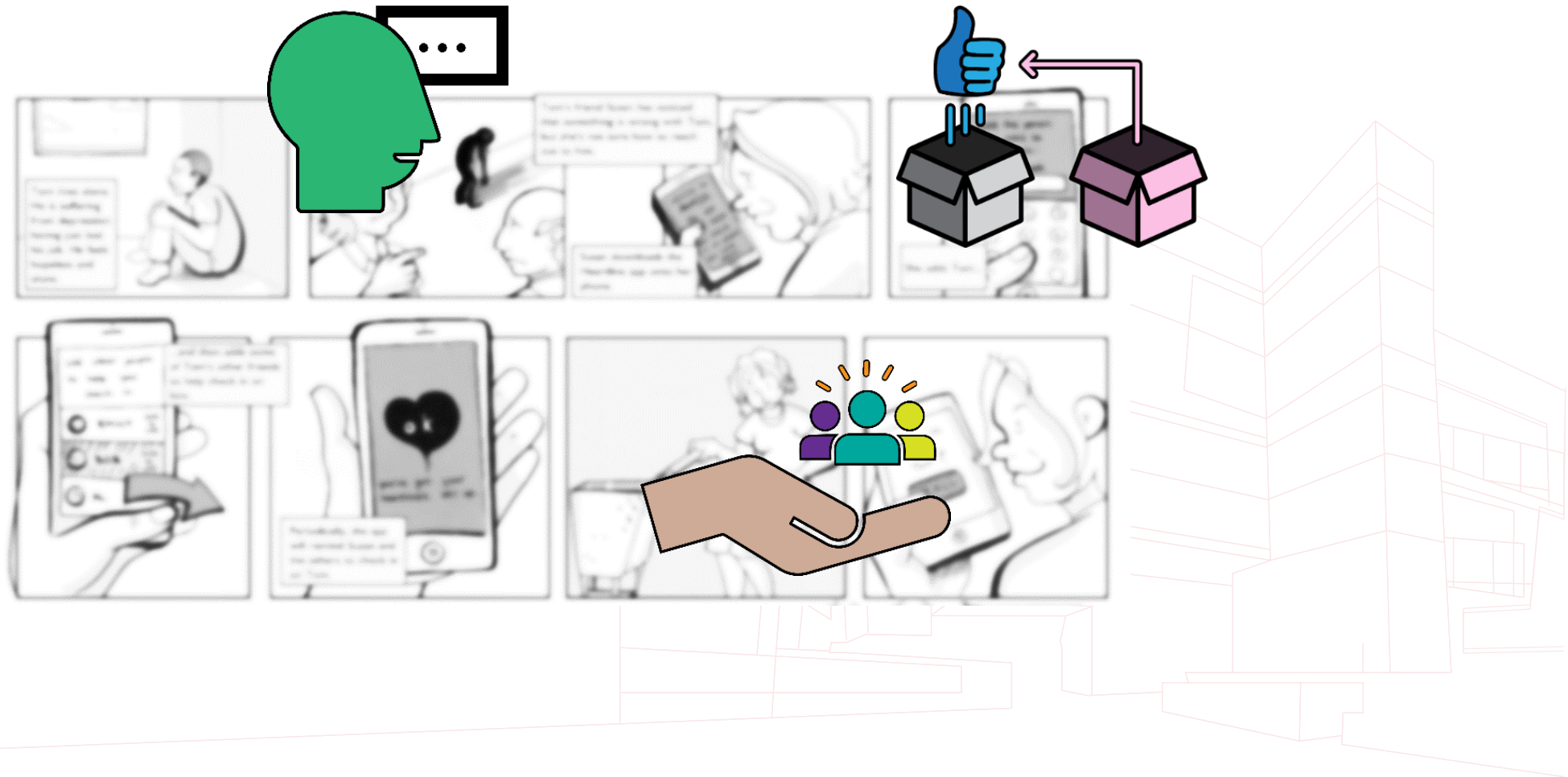
Social / Political Values



Design Features of New Design Value

□ Contribution

- ✓ Designers in practice for building enriched contents of use-case scenarios
 - ✓ Researchers investigating factors for building use-case scenarios



Thank You



APPENDIX



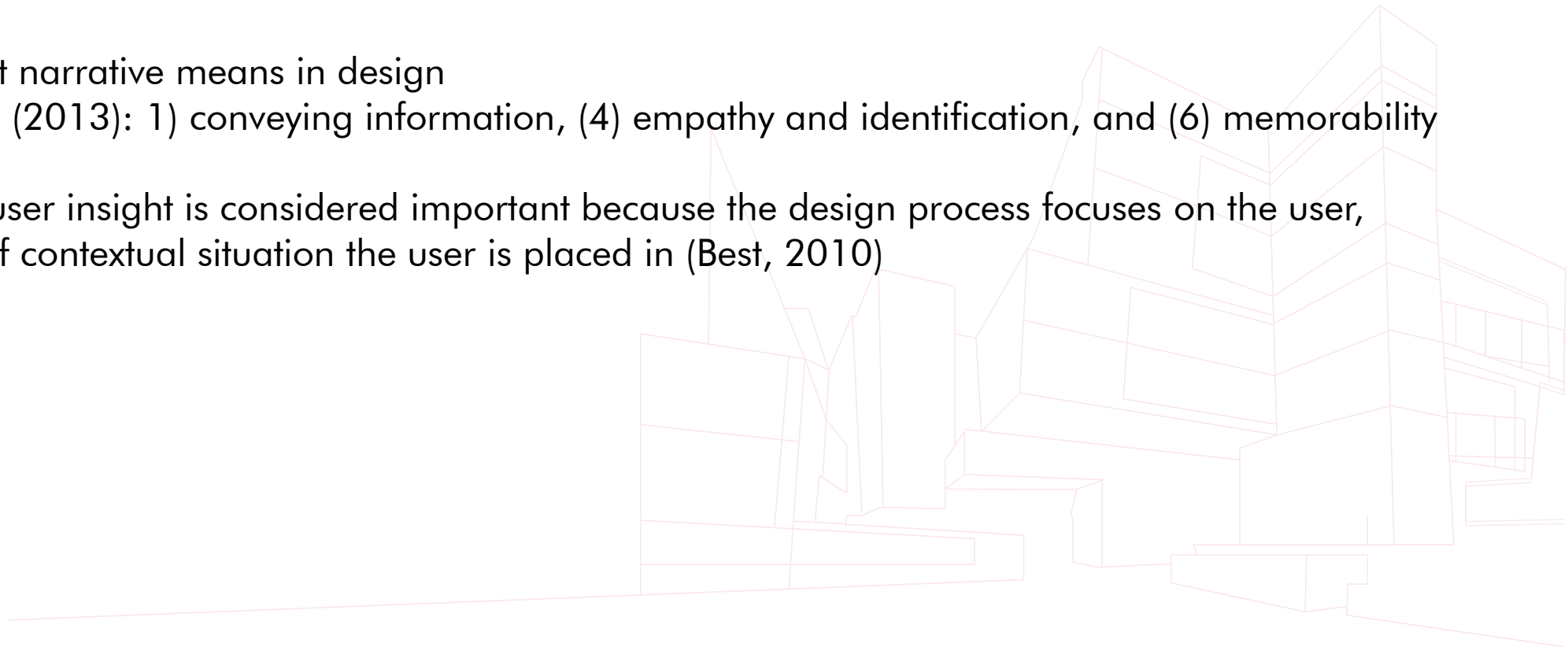
A. Integration of Narrative and Storytelling in Design Process

- Attempts to use narrative as a tool during the design process
 - Ganoë (1999) : Predict a possible reaction of space occupiers and assist designers to make concrete decisions
 - Danko (2006) : Narrative Inquiry used to derive meaning from human experience.

→ Use-case scenario :

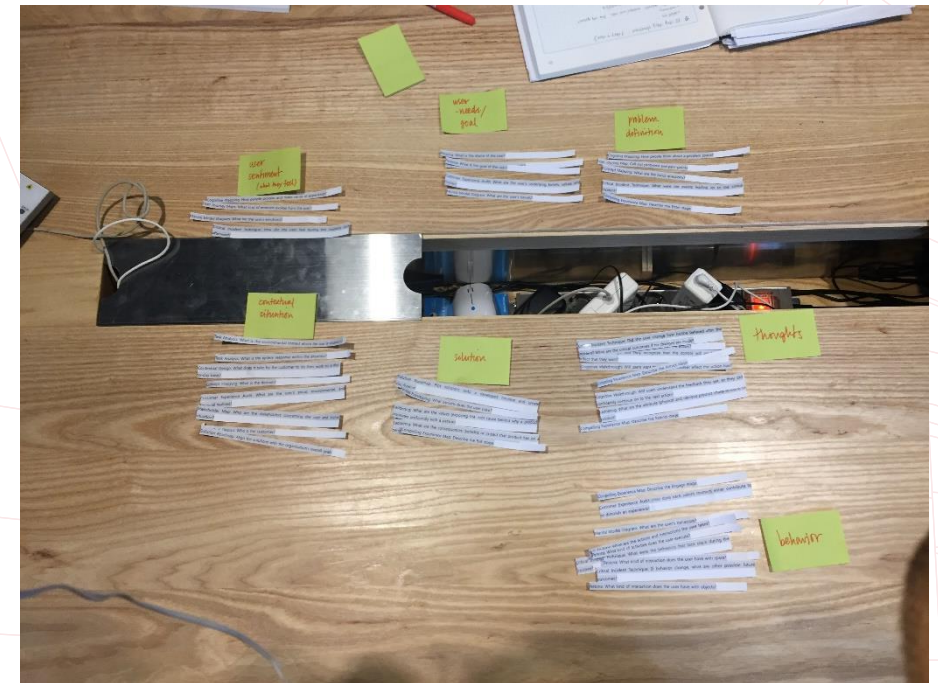
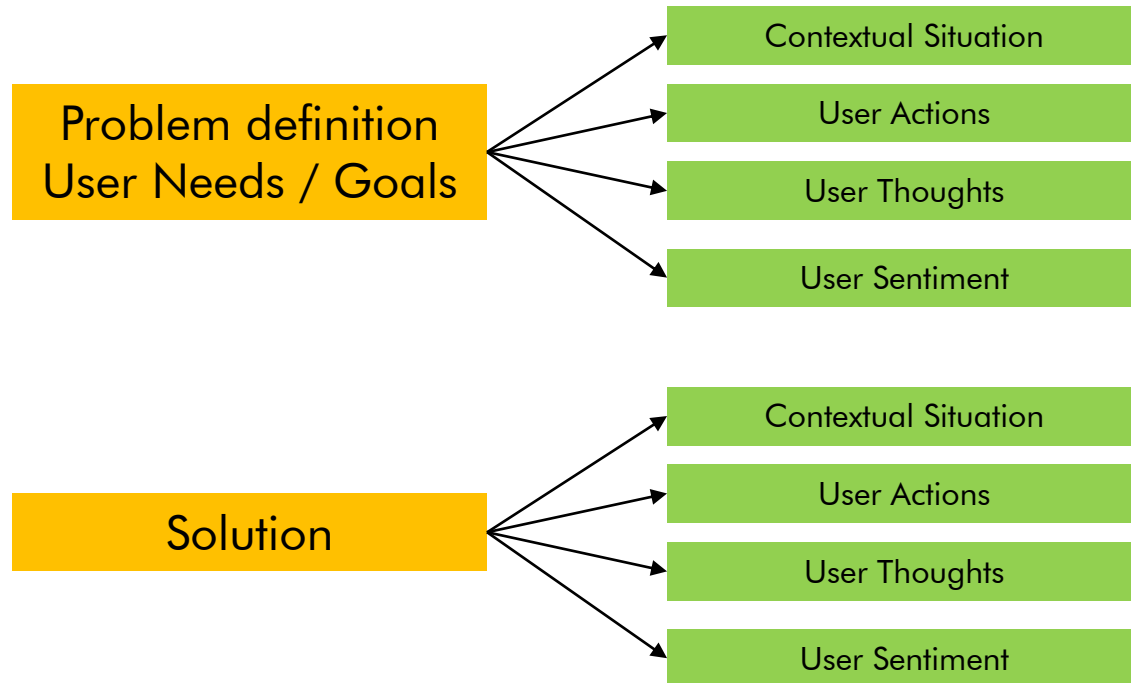
- Defining what narrative means in design
 - Grimaldi (2013): 1) conveying information, (4) empathy and identification, and (6) memorability

The element of user insight is considered important because the design process focuses on the user, and what kind of contextual situation the user is placed in (Best, 2010)



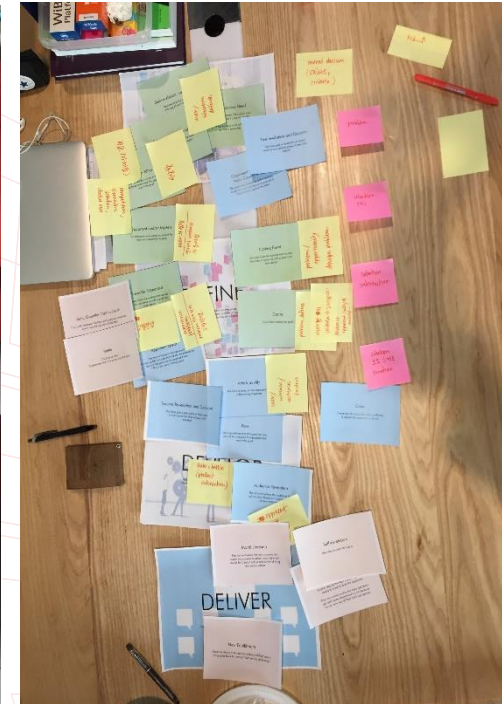
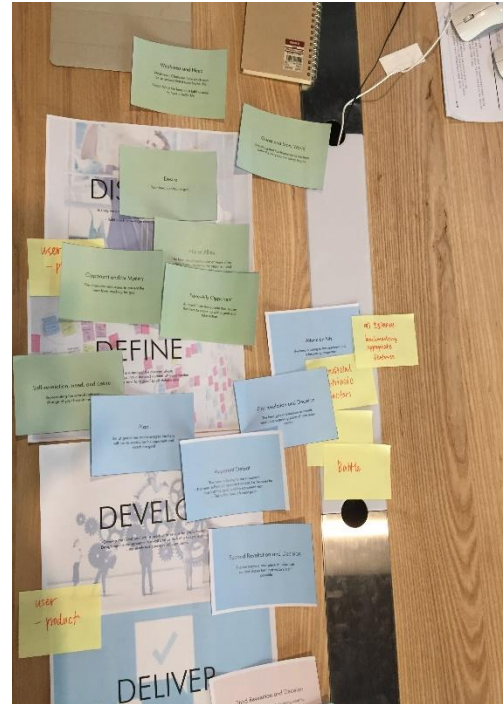
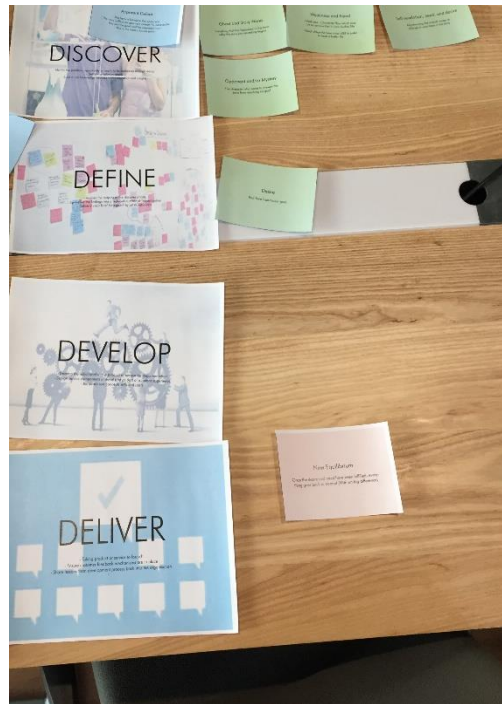
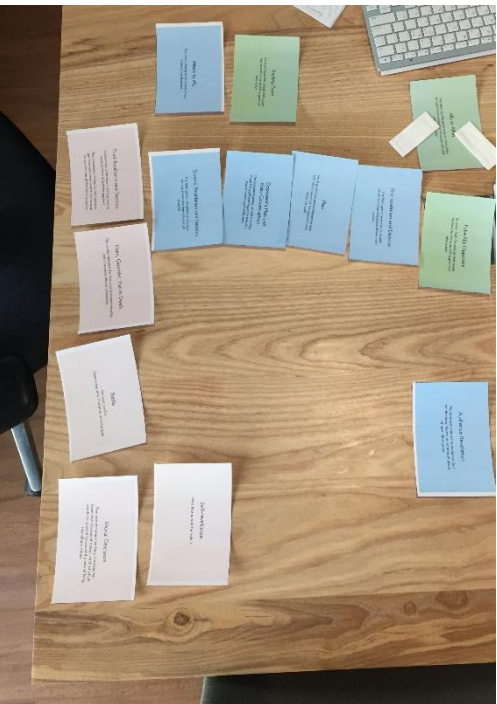
B. Storytelling-selection Workshop Process

- Retrieved from 16 design methods (43 stages) of building use case scenarios
- Workshop (3 Design Process Experts + 1 Storytelling Expert participated)
 - Went through the process of 'KJ Method'
 - → Grouping each stage of design method by its objective to identify key requirements of use case scenario
 - Focus Group Interview conducted : Hierarchy of the key requirements were set
- Identified key requirements of use case scenario will be used as criteria for selecting representative storytelling technique.



C. Scenario-building Workshop Process

- To identify the relationship of the storytelling technique (22 Step Story Structure) & use-case scenarios
- Workshop x 5 (4 Design Experts + 1 Storytelling Expert participated)
 - Examine on how each stage of the 22 Step Story Structure could be used to build use-case scenarios
- Semi-structured interview : To identify & define the key factors of use-case scenario (Appendix C)



D. Key Factors of Use-case Scenario : Identified from Scenario-building Workshop

User's Contextual Situation	Context of the situation of which user is in.
User Needs	Sought out outcomes of which the user will reach goal.
User Goal	Desired changes within user's current situation.
Social and Political Values	Social and political views of the user which affects the user's choices.
Problem and Opportunity	The issues concerning user needs and contextual situation. These issues can be also the source of inspiration for possible design solutions.
User Perception	The way user will notice intrinsic and extrinsic factors prior to the interaction of intrinsic and extrinsic factors.
User Interpretation	The way user will understand intrinsic and extrinsic factors during the interaction of the factors.
User Interaction	The way user will communicate with intrinsic and extrinsic factors.
Status Quo	User's bias / opinion.
Alternative or Competitor's Solution	Other solutions which serves the needs of the user. Within or out of the design development's product range.
Designer Revelation	User insight gained by designer.
Design Feature	Important elements of the design.
Solution	Solution of which will satisfy the needs of the user.
Changed Life	User reaching his or her goal due to the interaction with design solution.

E. Results of Co-occurrence Analysis

A. Stages of 22 Step Story Structure	B. Key Factors of Use-case Scenario	The role of A within the context of B
1. Self-revelation, need, and desire	User needs, User's contextual situation	The background of the user which functions to identify the initial user needs and what the user's present contextual situation is.
2. Ghost and story world		
3. Weakness and need		
4. Inciting event	Problem and opportunity User interaction, User interpretation,	Trigger points of the user journey which allows change to the user.
5. Desire (goal)	User goal	What the user wants to ultimately achieve.
6. Ally or allies	User needs, Alternative or competitor's solution, Design feature, Solution	1. The solution's design features which fulfills the needs of the user 2. The strengths of the alternative or competitor's solution which can be benchmarked for the development of design
13. Attack by ally		
7. Opponent and/or mystery	User needs, Problem and opportunity, Alternative or competitor's solution, Design feature, Solution	The weaknesses of the alternative or competitor's solution used as design guidelines of which not to follow, or as design research factors that needs further investigation to be solved to fulfill user needs.
11. Opponent's plan and main counterattack		
8. Fake-Ally Opponent	Status Quo	An event from the outside that causes the protagonist to come up with a goal and take action
9. First revelation	Problem and opportunity, Design solution, User perception	1. The problems of which the user is experiencing 2. How the user perceives the design solution can be carried out to be key insights for design development
15. Second revelation		
17. Third revelation		
20. Self-revelation		
10. Plan	User perception	The perception of the user concerning the solution
12. Drive	User interaction	The actions the user takes when interacting with the design solution
14. Apparent defeat	Problem and opportunity Status quo	The point of what causes the status quo, which can be used as a design opportunity
16. Audience revelation	Designer revelation	The designer gaining insight for design development.
18. Gate, gauntlet, visit to death	Problem and opportunity, User interaction	The interaction between the problem and the user
19. Battle		
21. Moral decision	User perception Social and Political Values	The social and political values of the user which affect the choices and actions of the user
22. New equilibrium	Solution, Changed life	The expected changed life of the user after the user has interacted with the solution