CSE 593

Contextual Inquiry (part 2)

Farnaz Jahanbakhsh

Course content adapted with modification from original materials by Nikola Banovic

EECS ELECTRICAL ENGINEERING AND COMPUTER SCIENCE UNIVERSITY OF MICHIGAN

Logistics

- Assignment 1 (Individual) was due yesterday.
- Assignment 1 (Group) due next week.
- Get started on the assignments as soon as they are released
- Quiz 3 assigned today and due tomorrow.
- No upcoming required reading.

Consent form

- A description of the study
- Inclusion/exclusion criteria
- Participation is voluntary
- Handling of the PII
- Benefits of the research
- Risks and discomfort
- Compensation

https://research-compliance.umich.edu/sites/default/files/resource-download/irb-hsbs_exempt_consent_template_2024_1.doc

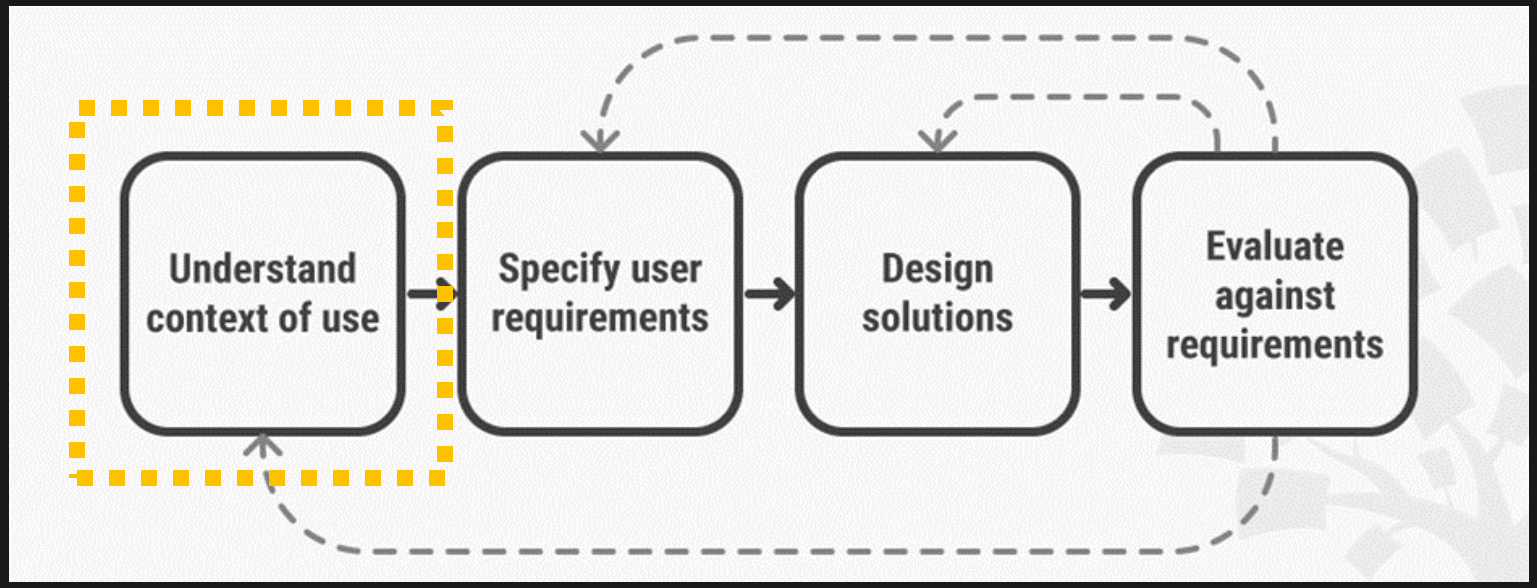
Learning goals (over two lectures)

Learn how to study the current context of use.

Learn to apply observations and interviews to identify gaps and breakdowns with existing interactive systems.

Learn how to elicit information relevant to functional and technical requirements and constraints.

User-centered design process



Interaction Design Foundation (https://www.interaction-design.org/literature/topics/user-centered-design)

Contextual Design

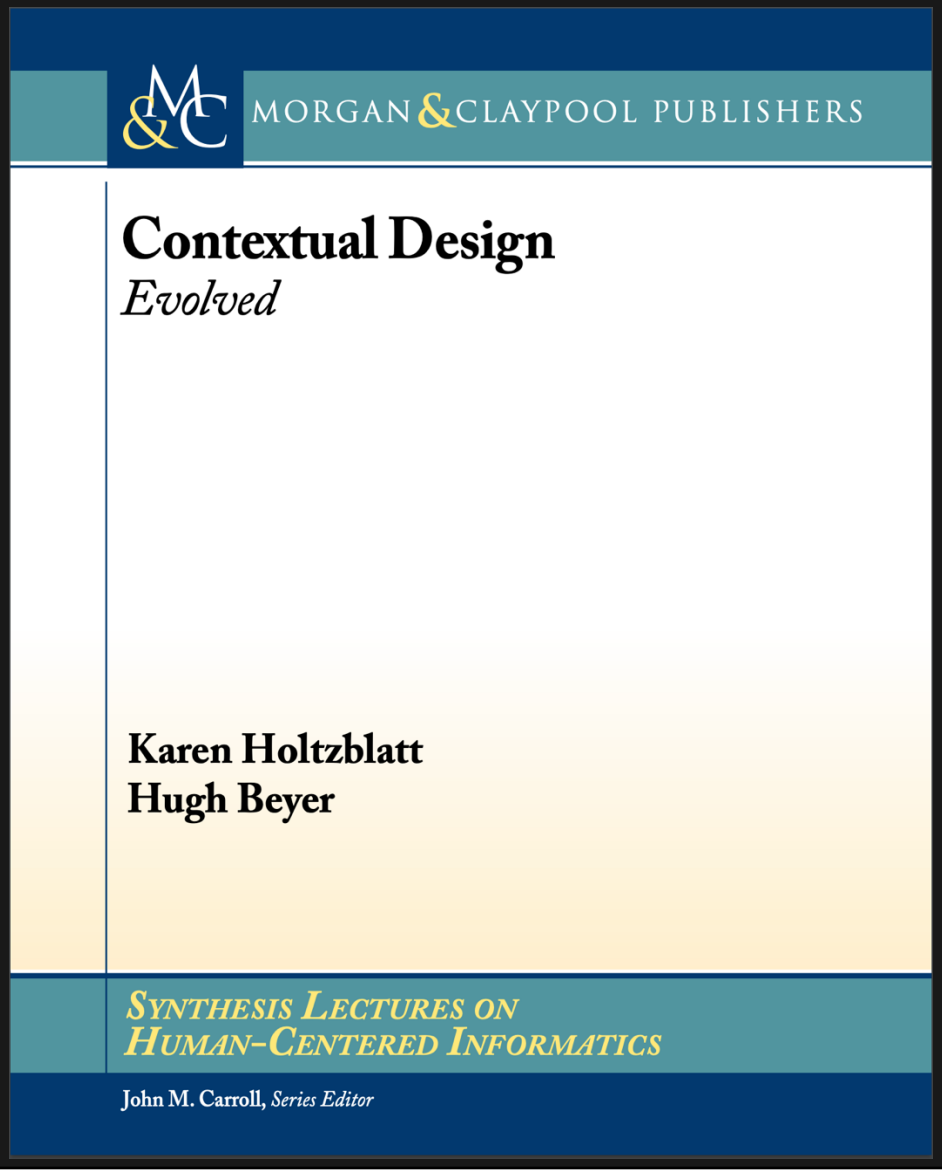
Contextual Inquiry

Interpretation

Consolidation

Design

Contextual Design



Contextual Design *Evolved* (https://doi.org/10.2200/S00597ED1V01Y201409HCI024)

Interpretation

Sequence Model

Flow Diagram (from earlier Contextual Design)

Example: communicating with friends

Example: texting a friend

Code	Interpretation
U01-01	They texted their friend to check on existing plans.
U01-02	To text a friend they had to first find their phone that is not always on them.
U01-03	They had to ask their significant other to call their phone to be able to find it.
U01-04	To text a friend they located an old SMS thread and simply ”replied” to an unrelated message. It does not matter what the previous message was about.
U01-05	They then typed a message asking about dinner plans later that weekend. They read the message a few time before sending to make sure it was free from errors and that it “made sense.”
U01-06	The friend does not always respond right away; that is fine as long as they hear back in time.
U01-07	When phone is handy, they can text right away.

Interpretation

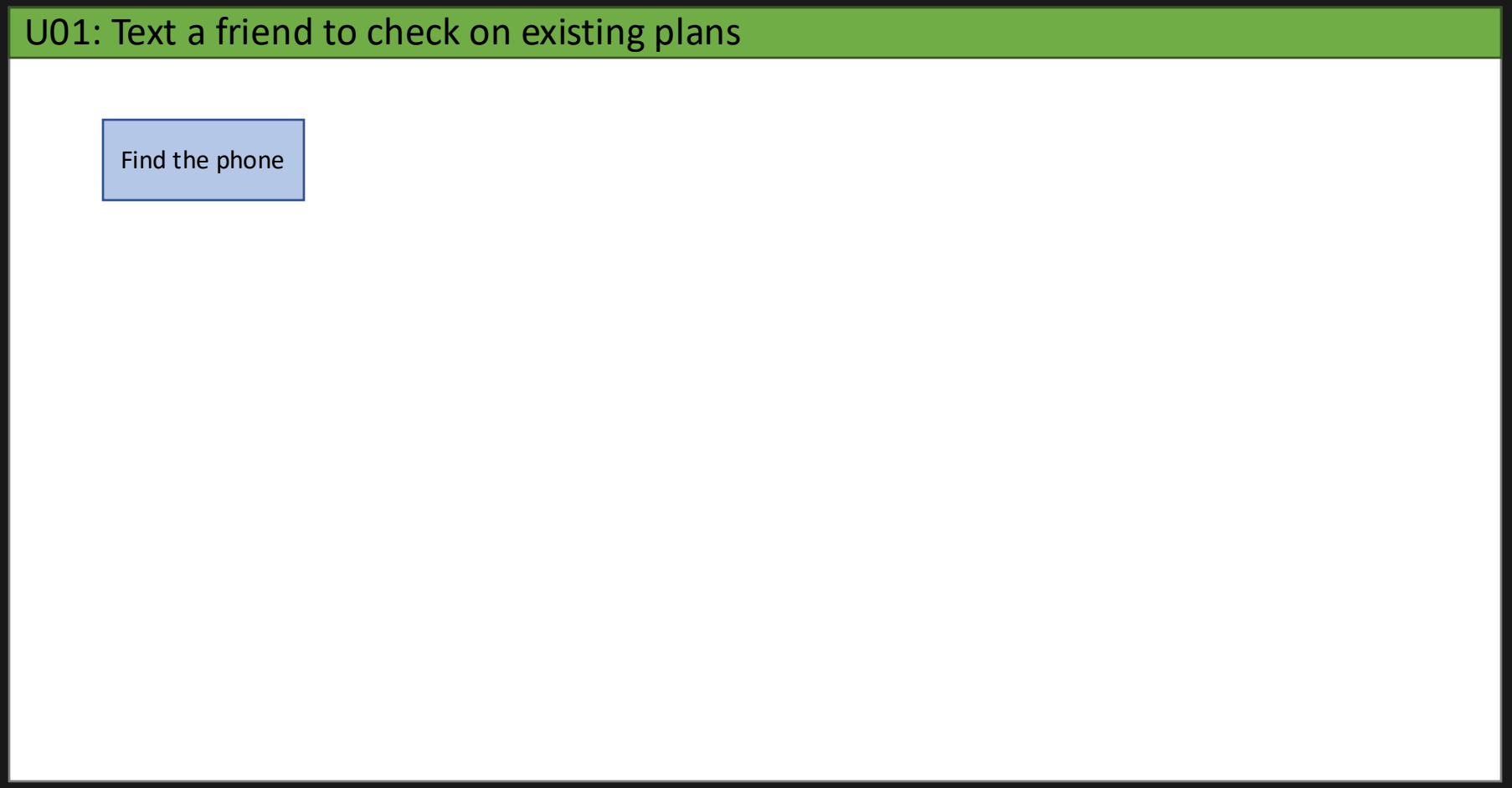
Sequence Model

Flow Diagram (from earlier Contextual Design)

Sequence model

U01: Text a friend to check on existing plans

Sequence model



Sequence model

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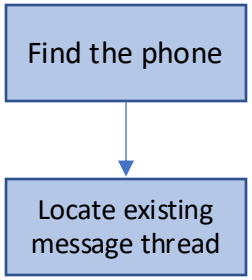

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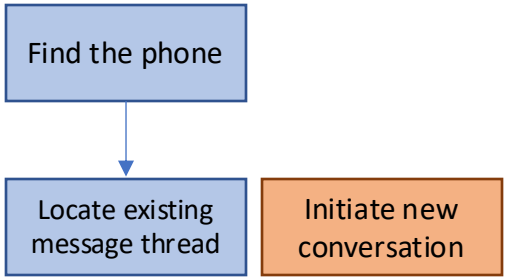

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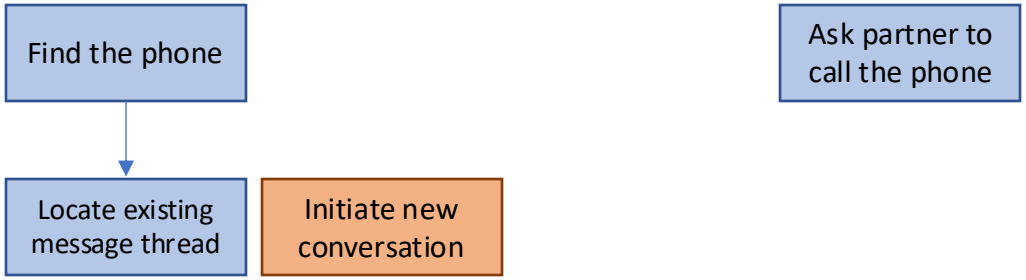

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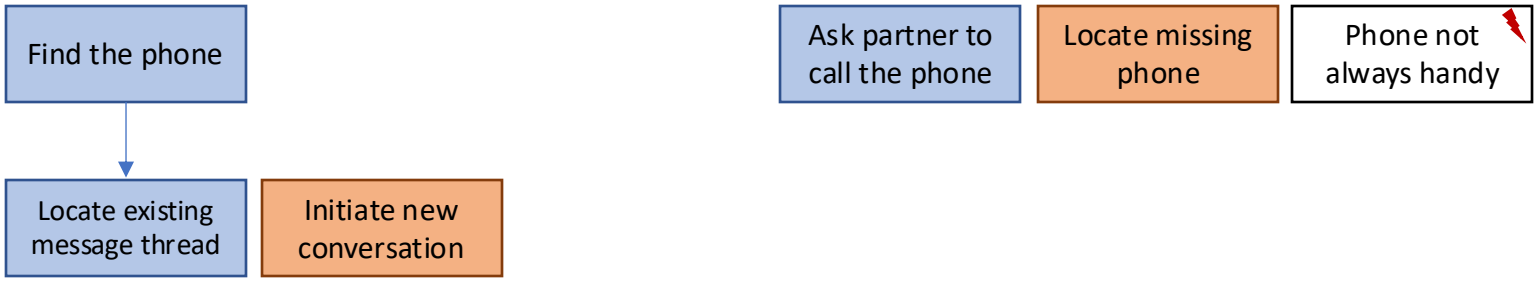

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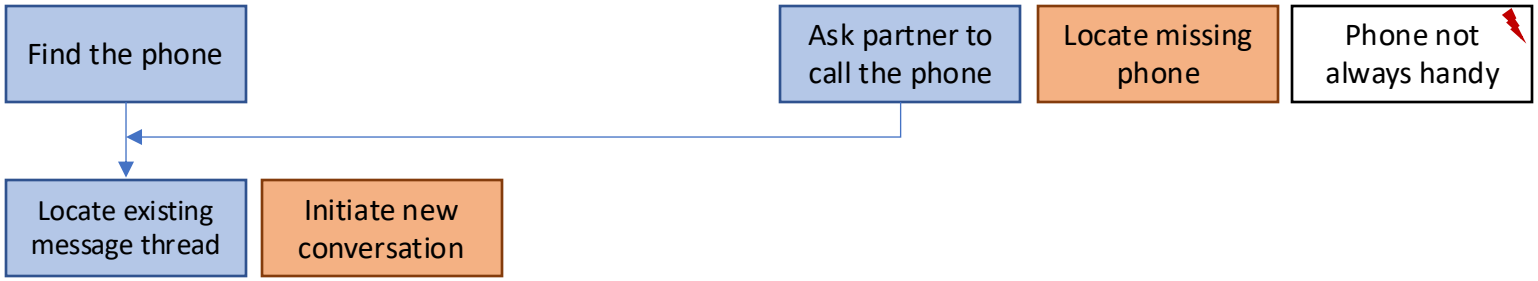

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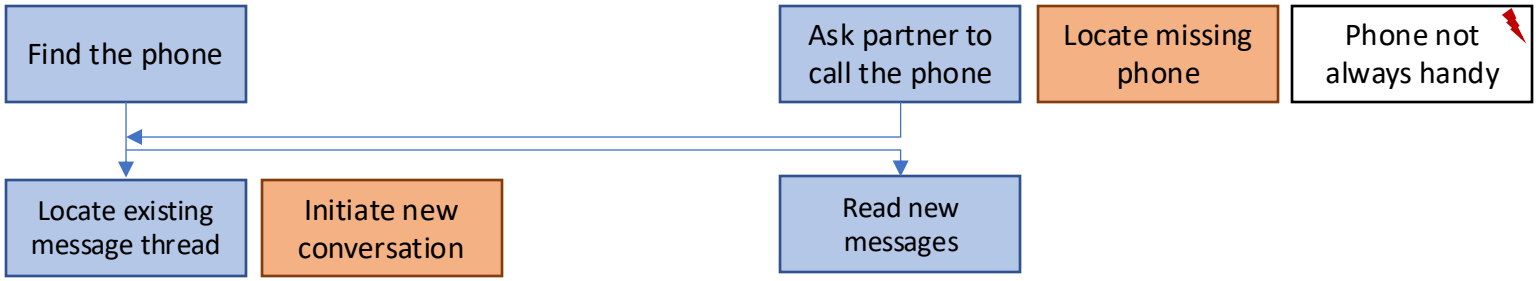

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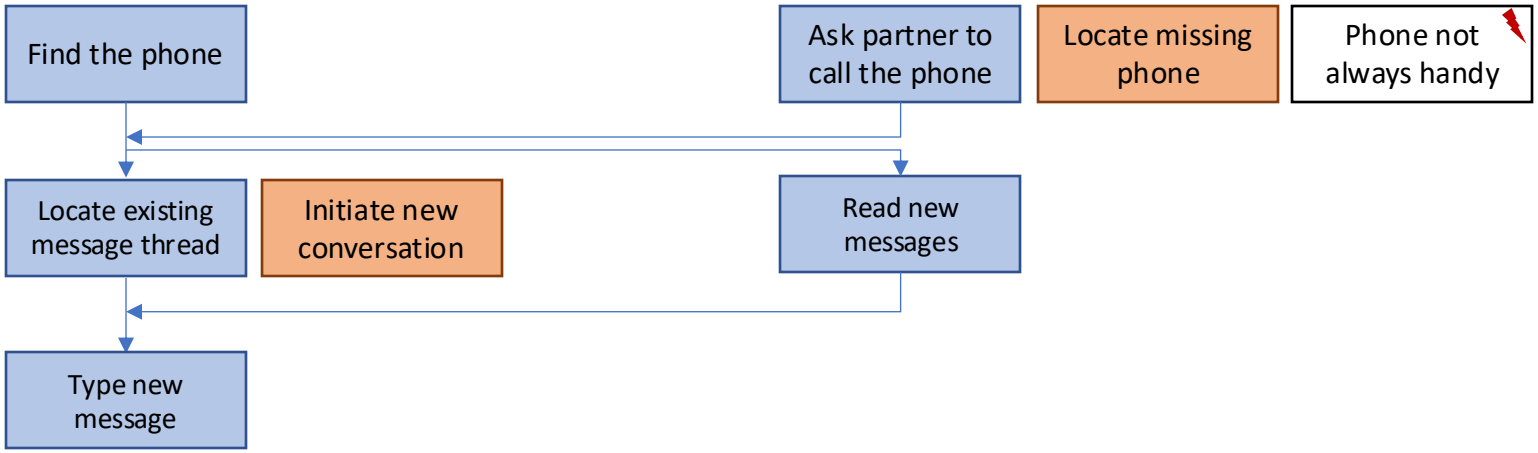

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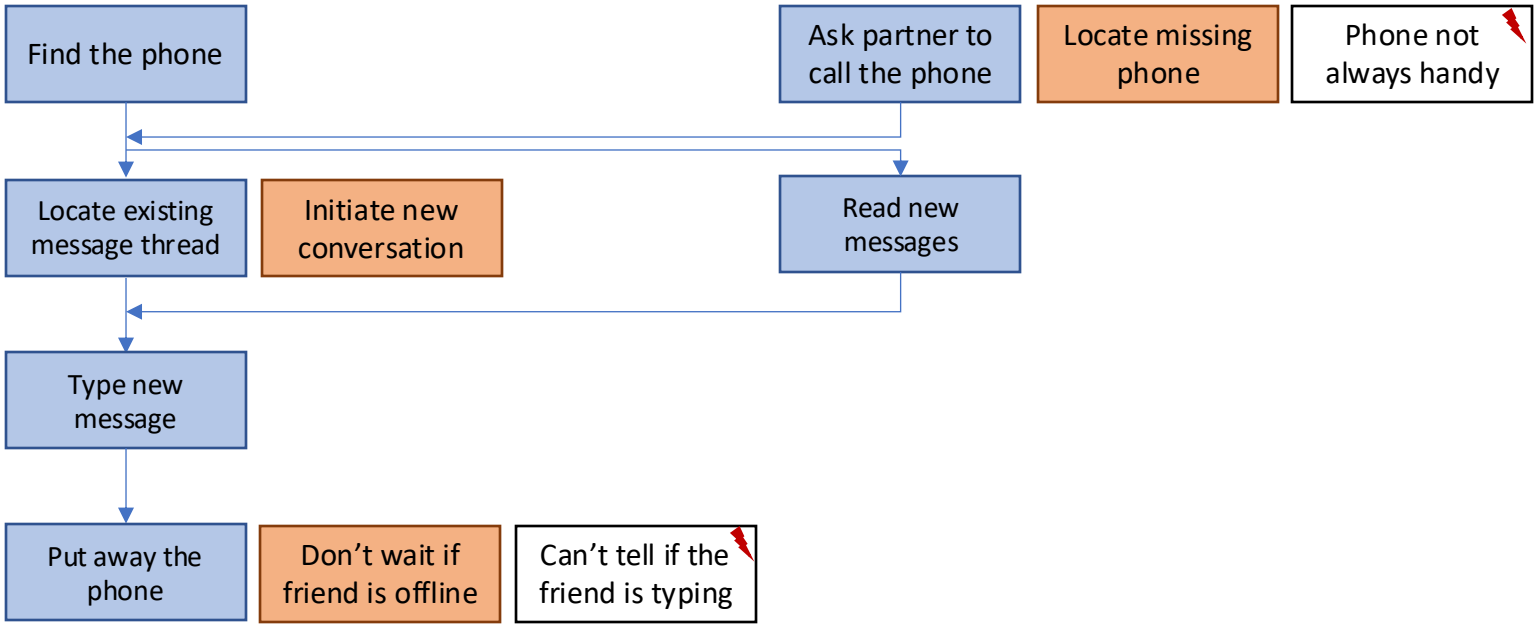

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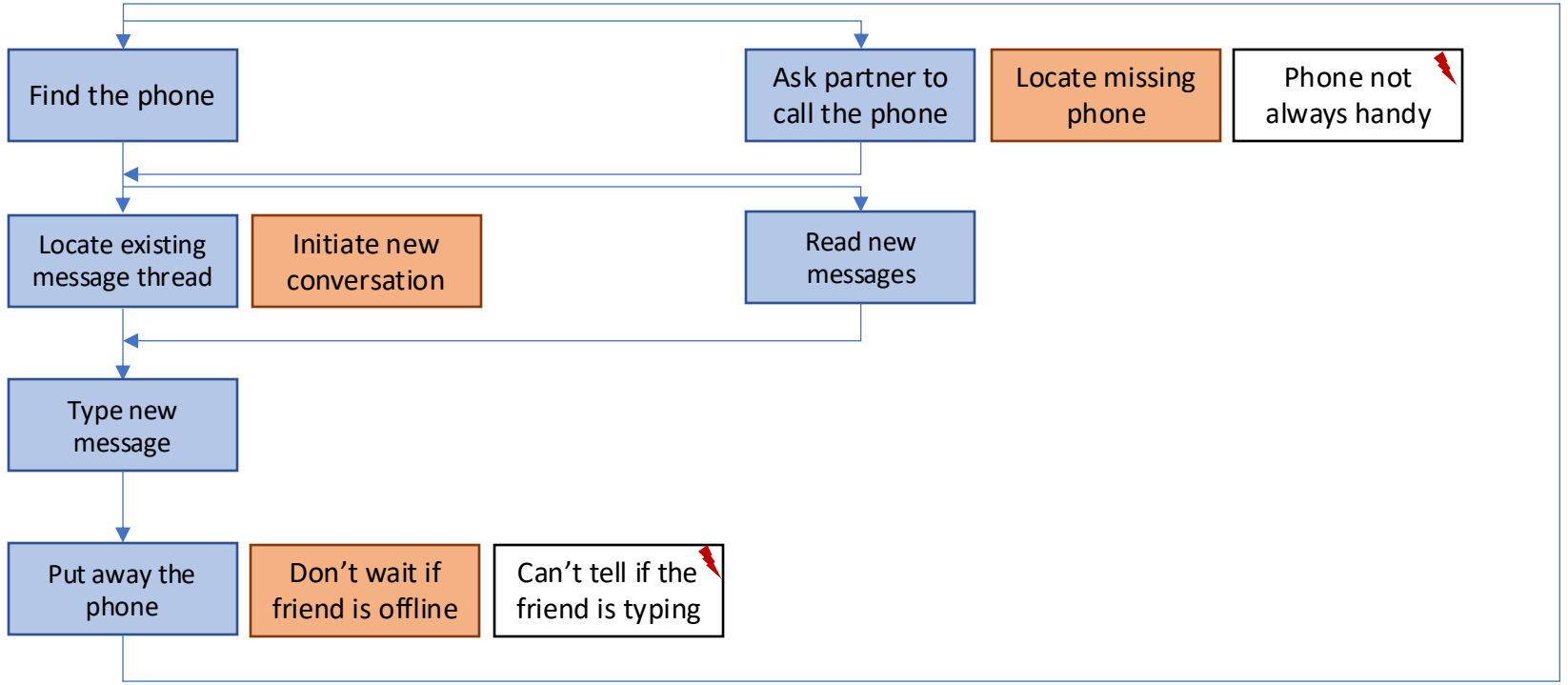

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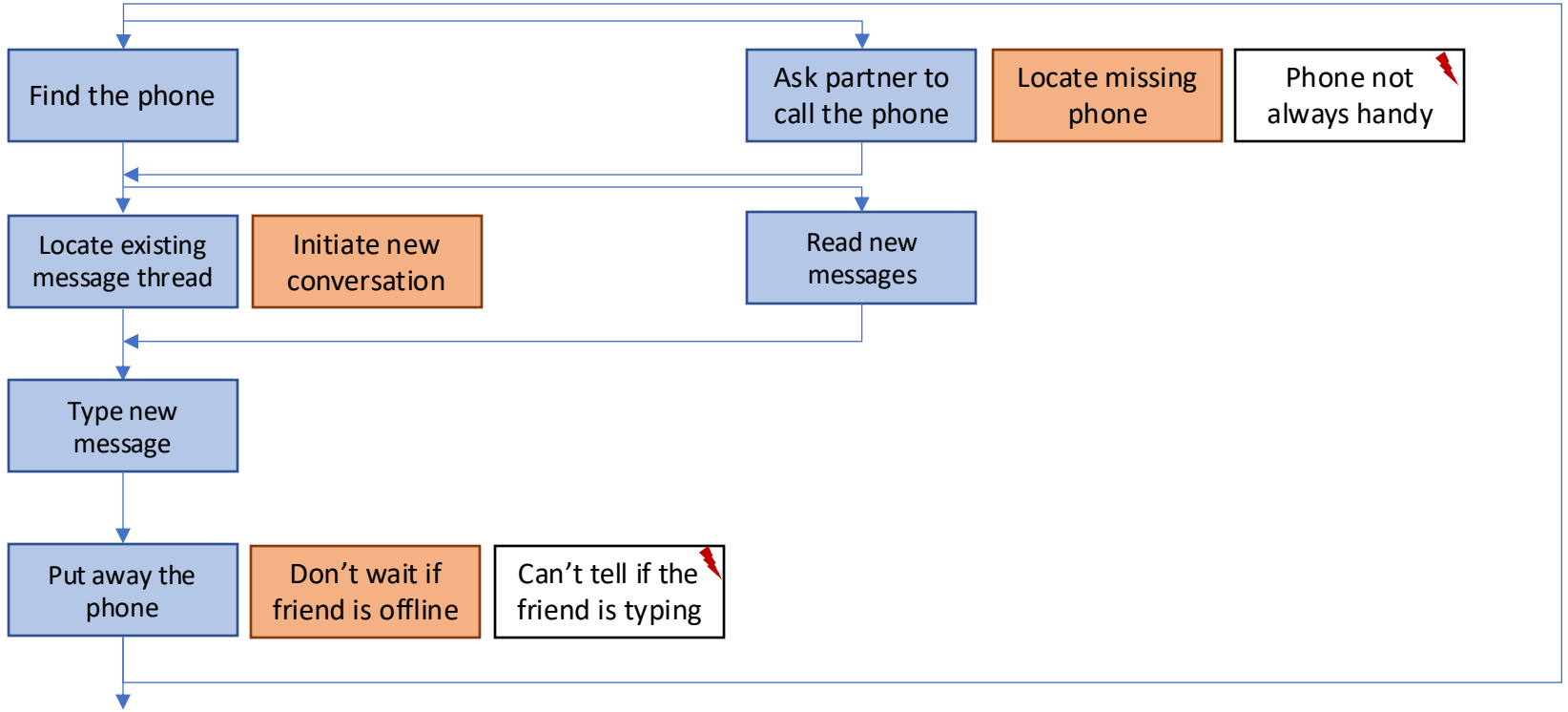


Please answer this question in Canvas

What best describes a Sequence Diagram? Select all that apply.

- ❑ It holds all interpretations.
- ❑ It shows a sequence of steps that participants took to perform their tasks.
- ❑ It shows participants' intentions behind different steps they took to complete their tasks.
- ❑ It shows breakdowns that prevented or made it difficult for participants to complete their tasks.

You have 120 seconds…

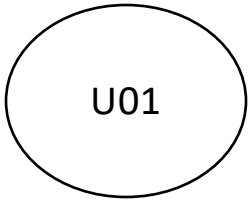
DONE!

Interpretation

Sequence Model

Flow Diagram (from earlier Contextual Design)

Flow diagram



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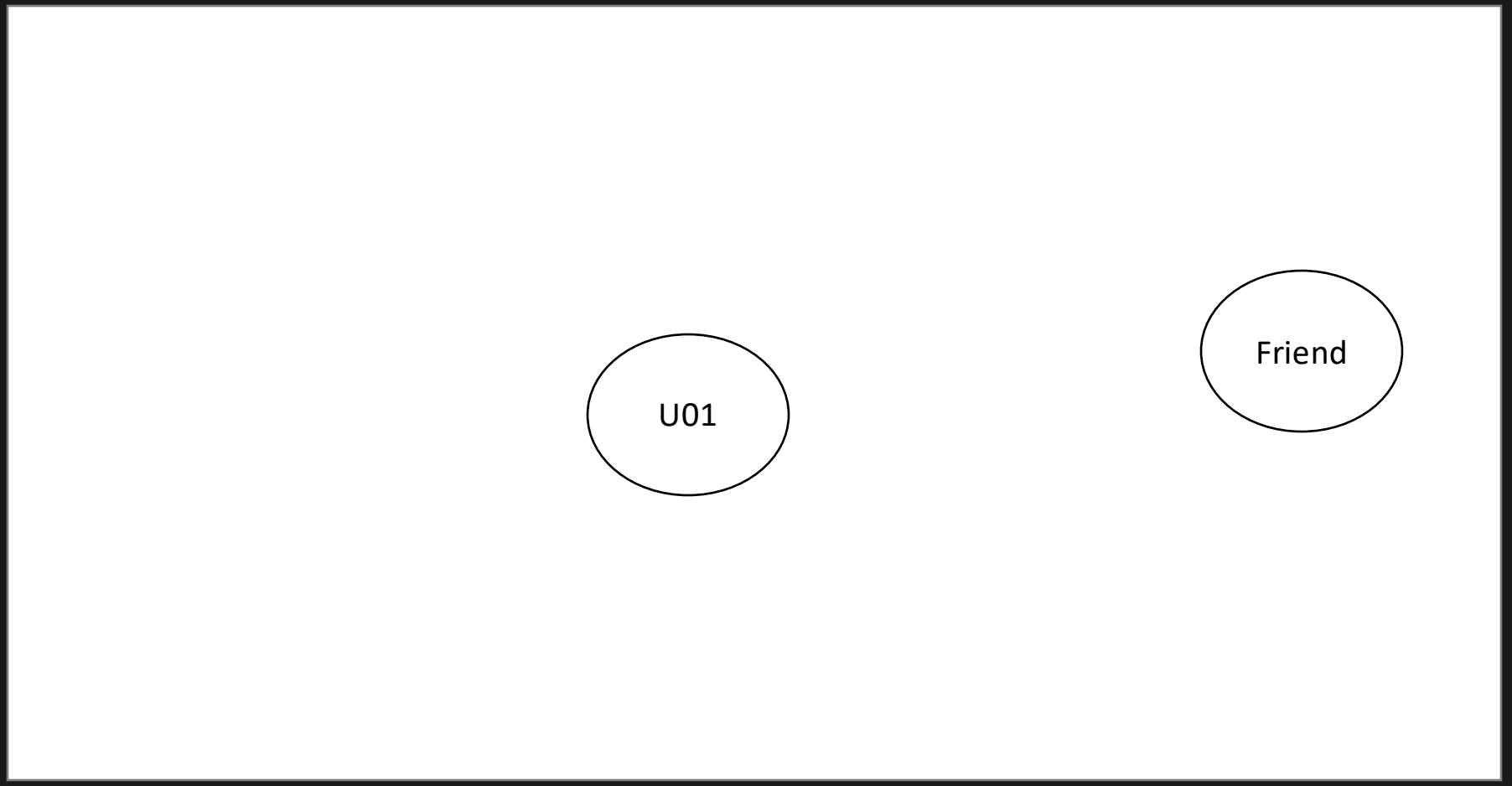

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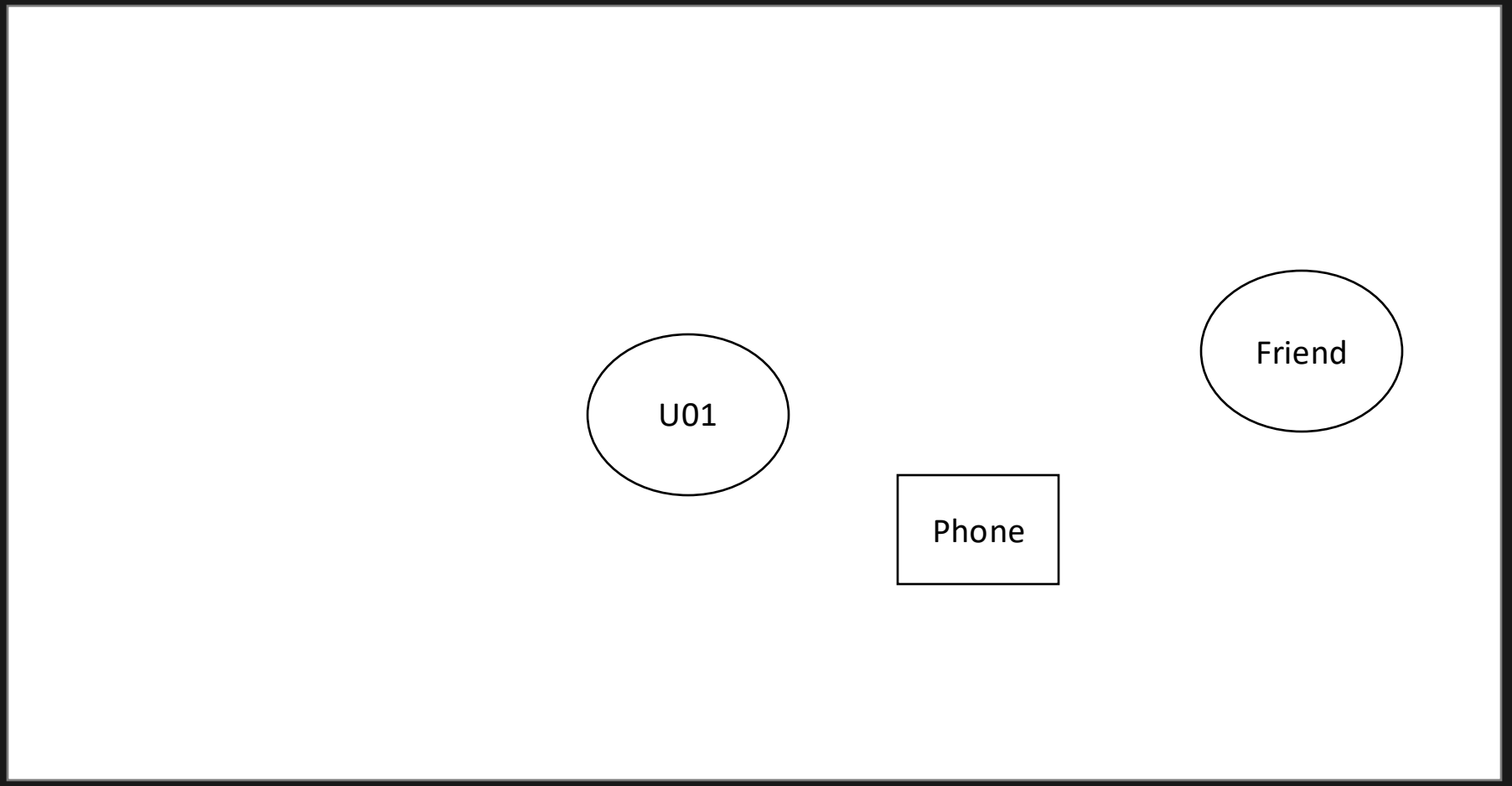

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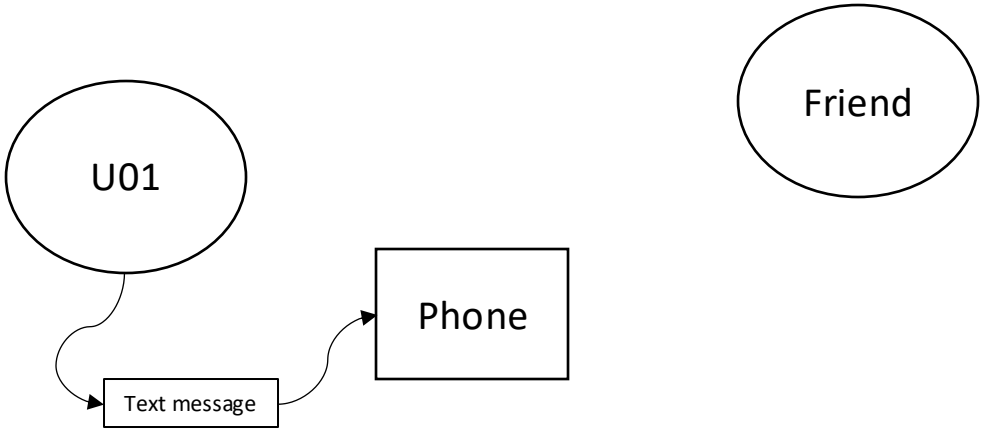

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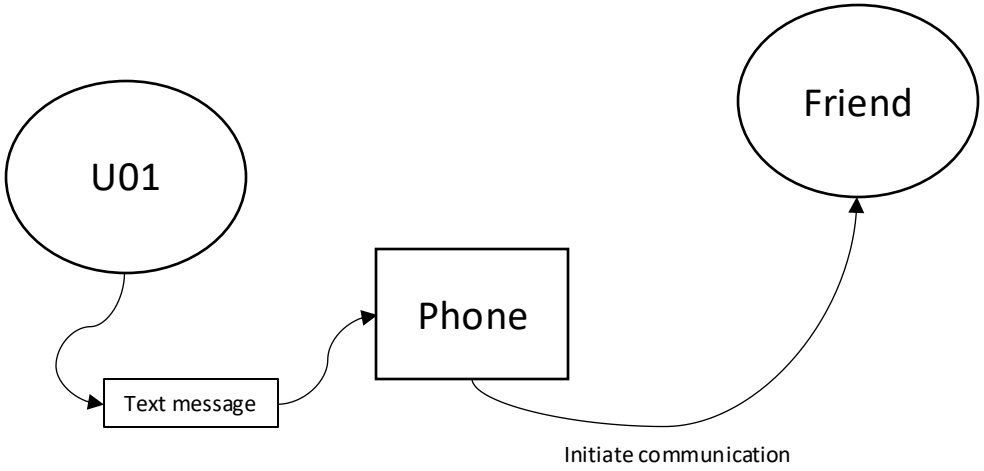

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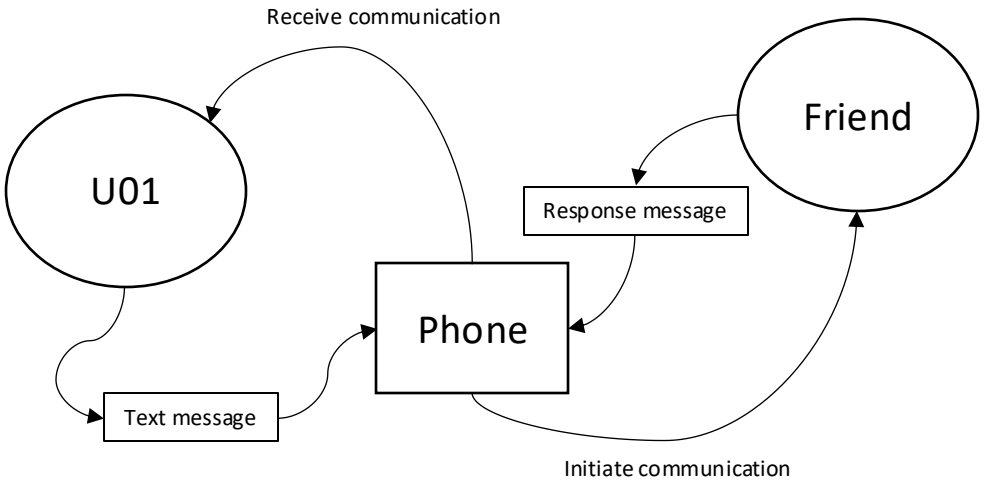

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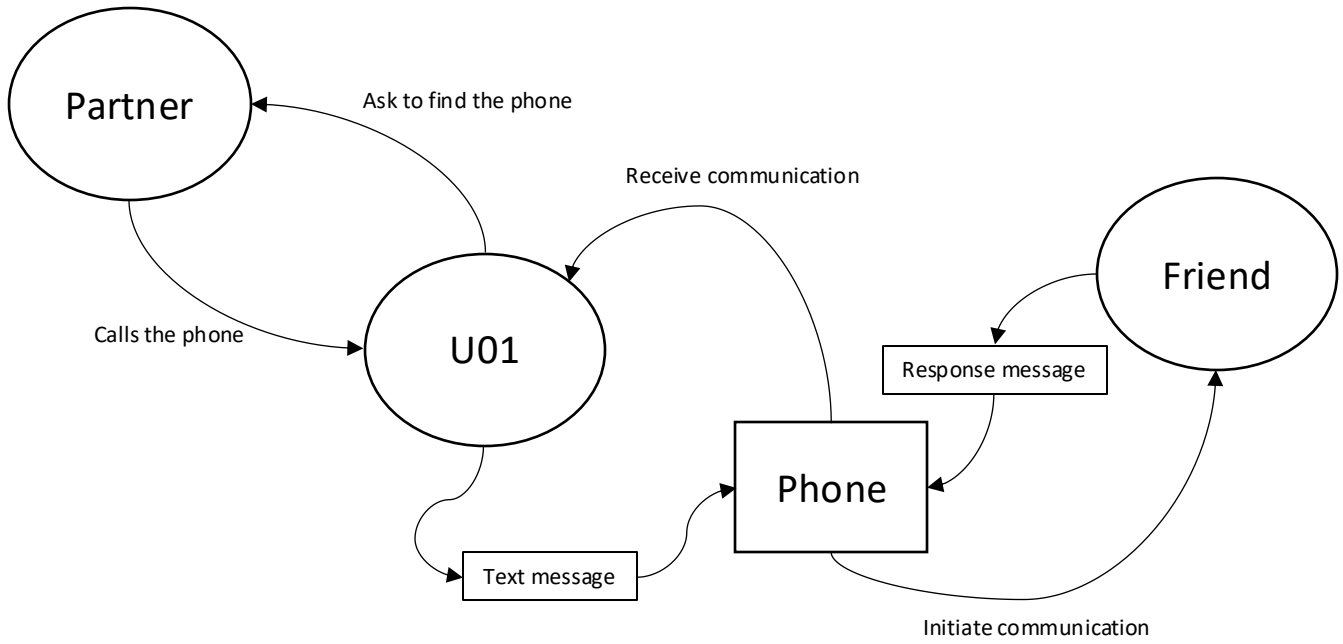

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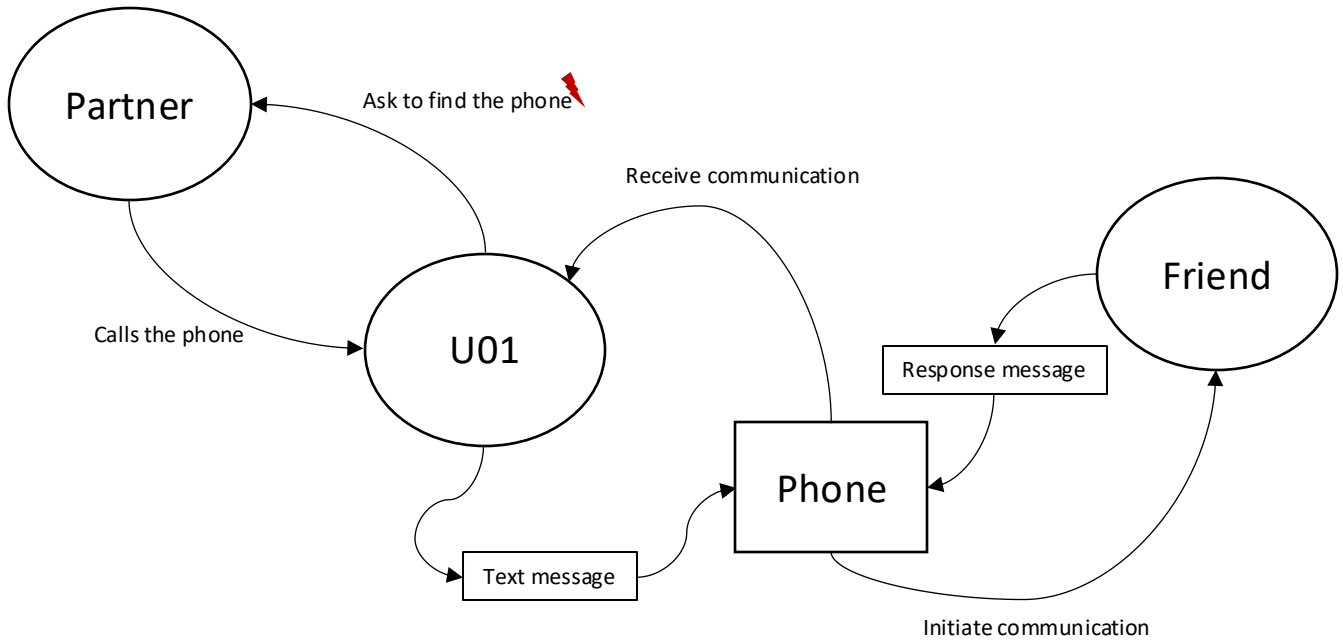

Please answer this question in Canvas

What best describes a Flow Diagram? Select all that apply.

- ❑ It shows different stakeholders that participants mentioned in their interview.
- ❑ It shows the flow of information and artifacts between different stakeholders.
- ❑ It shows different technology that participants used to complete their tasks.
- ❑ It shows different themes that emerge from interpretations.

You have 120 seconds…

DONE!

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Consolidation

"Putting it all together."

Consolidation

Sequence Model

Flow Diagram (from earlier Contextual Design)

Affinity Diagram

Consolidation

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Affinity Diagram

Sequence model

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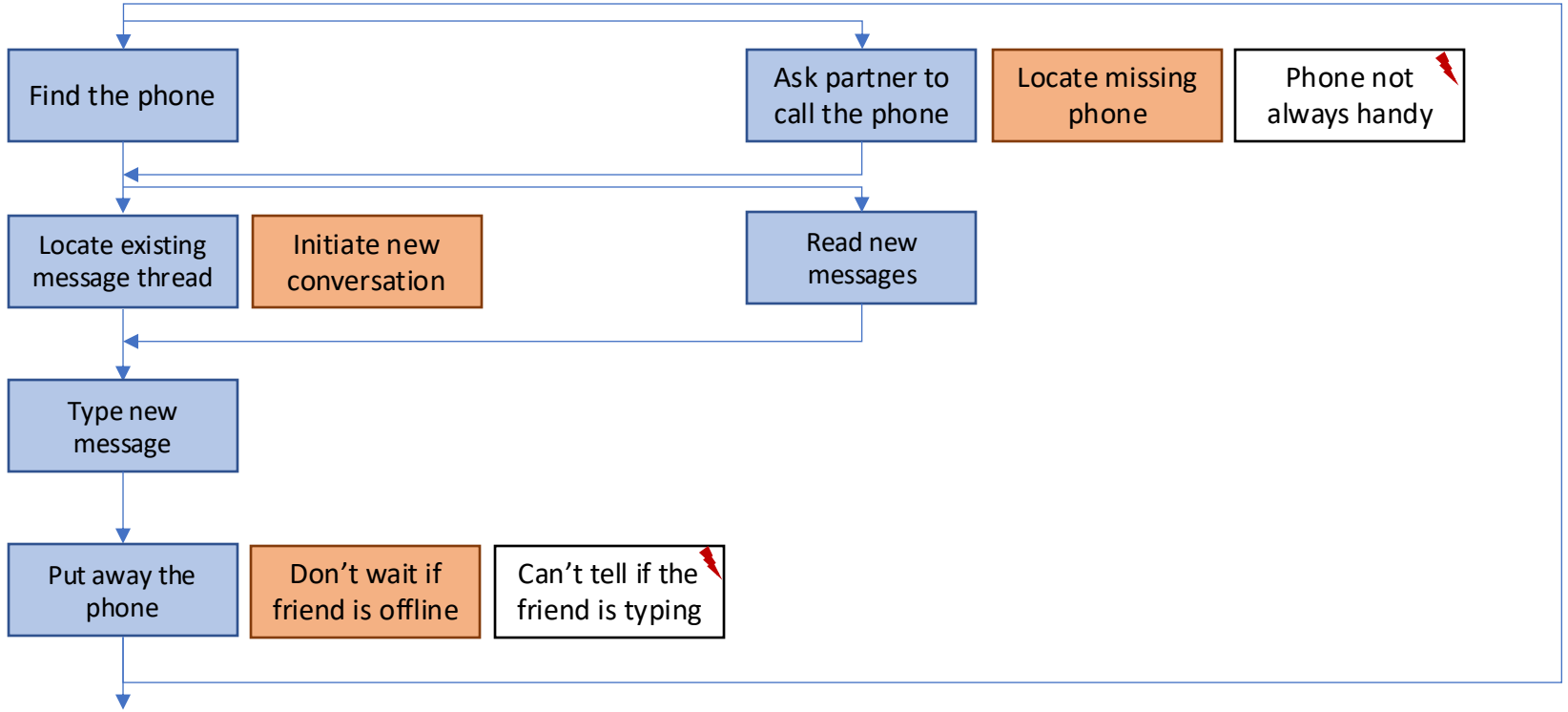
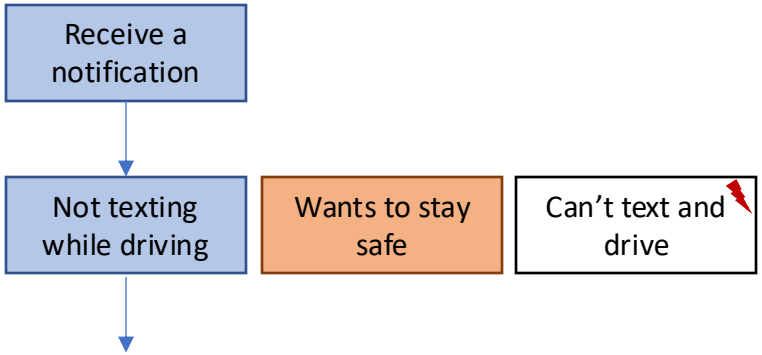
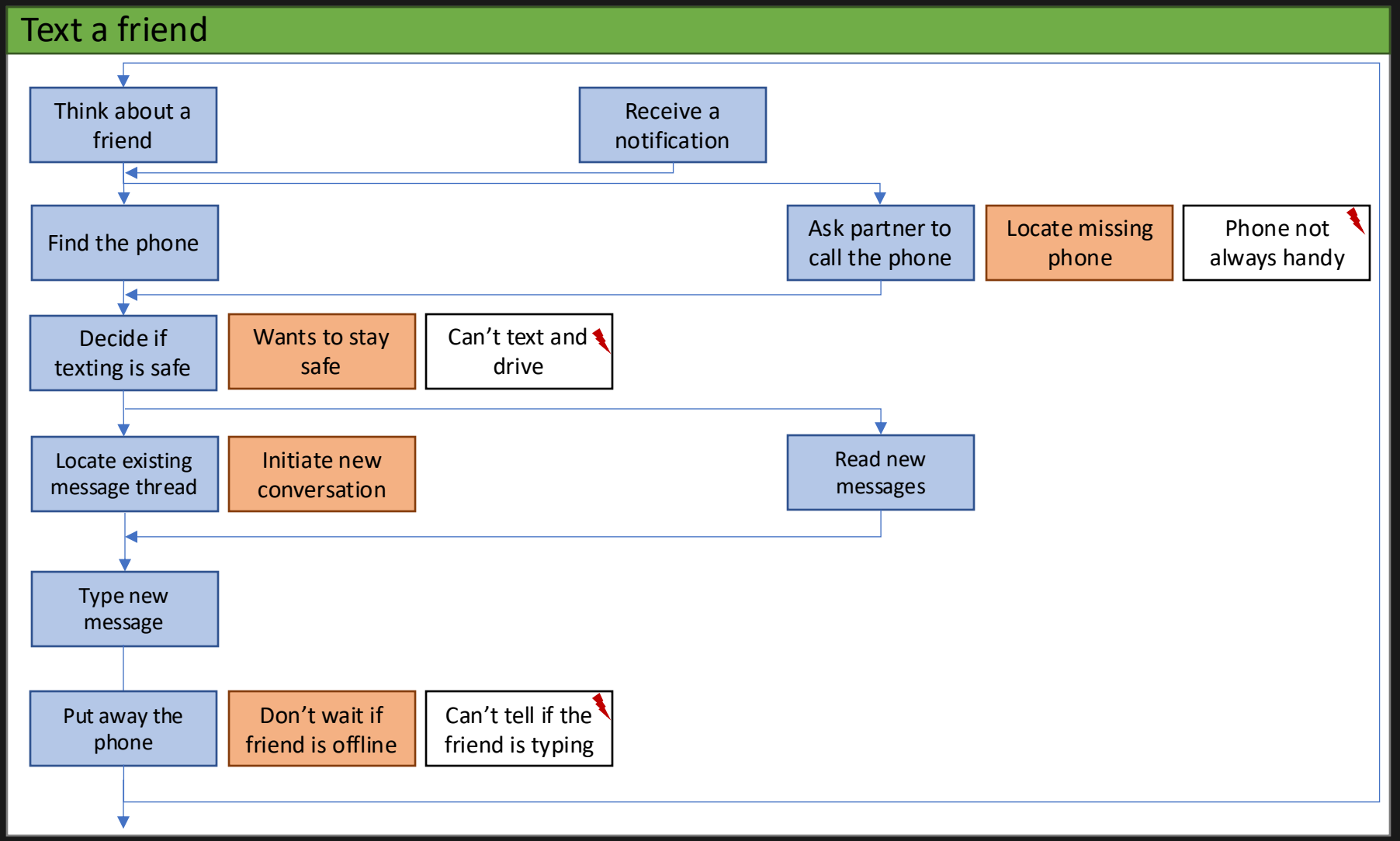


Sequence model

U02: Text a friend to tell them they are on their way



Consolidated sequence model



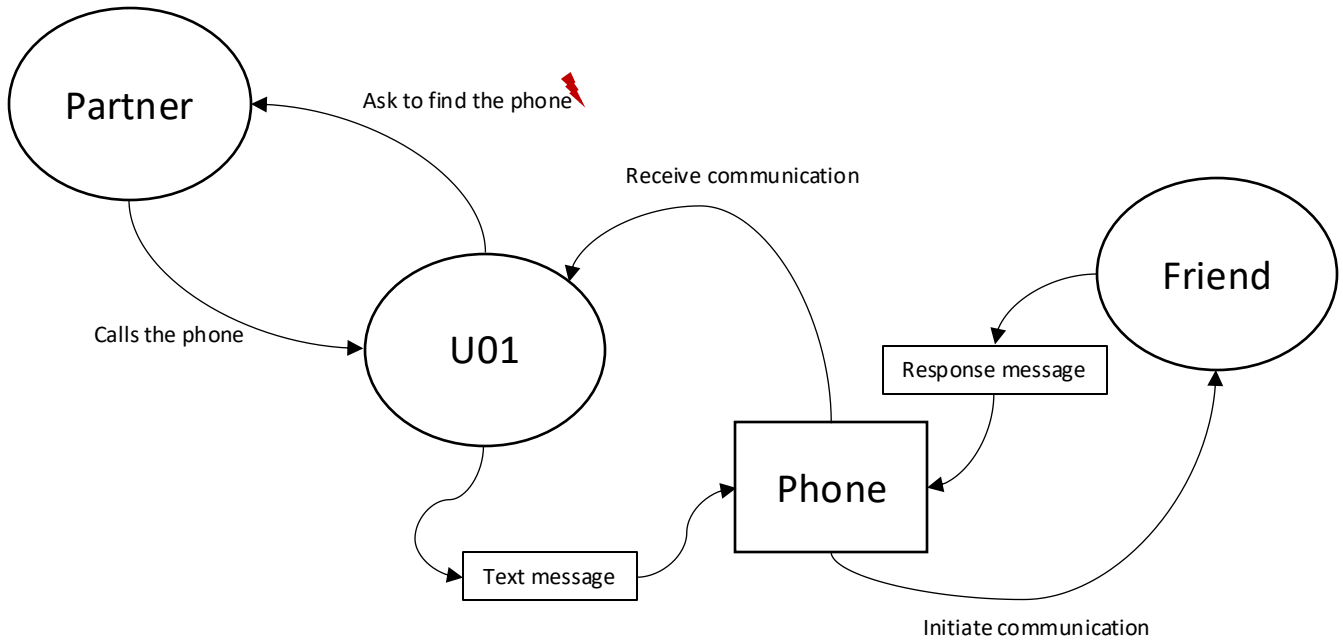
Consolidation

Sequence Model

Flow Diagram (from earlier Contextual Design)

Affinity Diagram

Flow diagram



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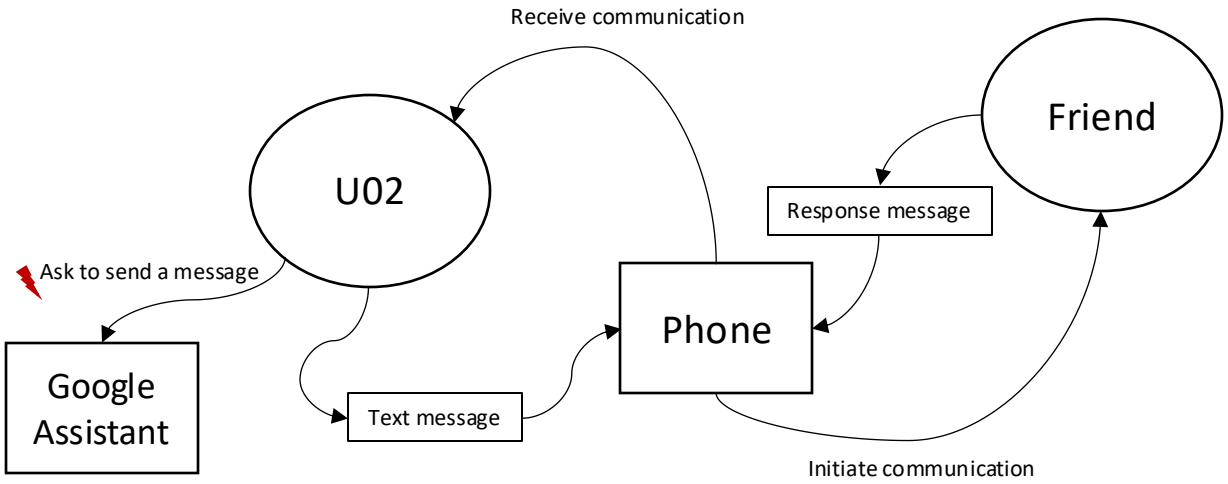

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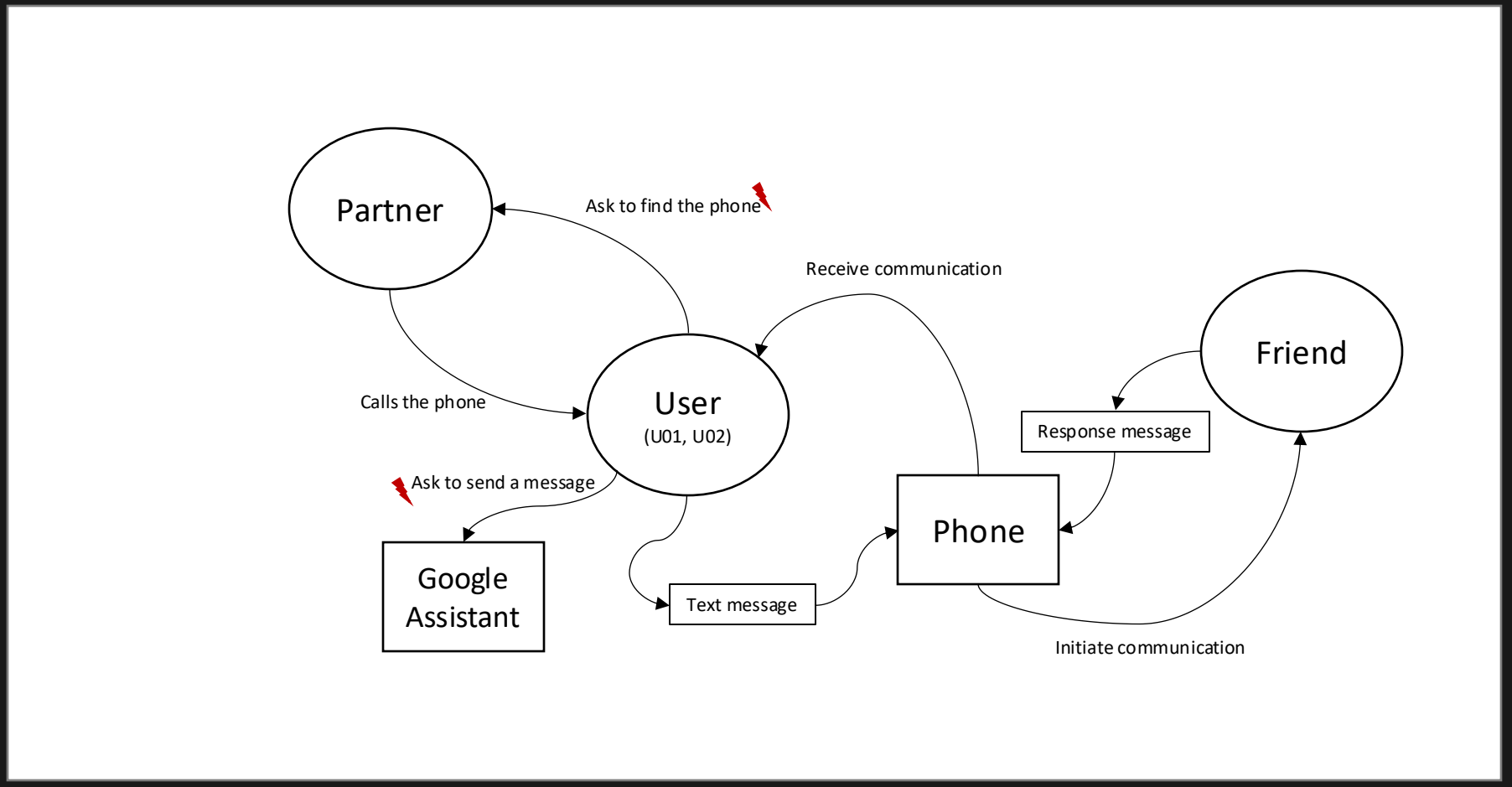

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Affinity Diagram

Example: texting a friend

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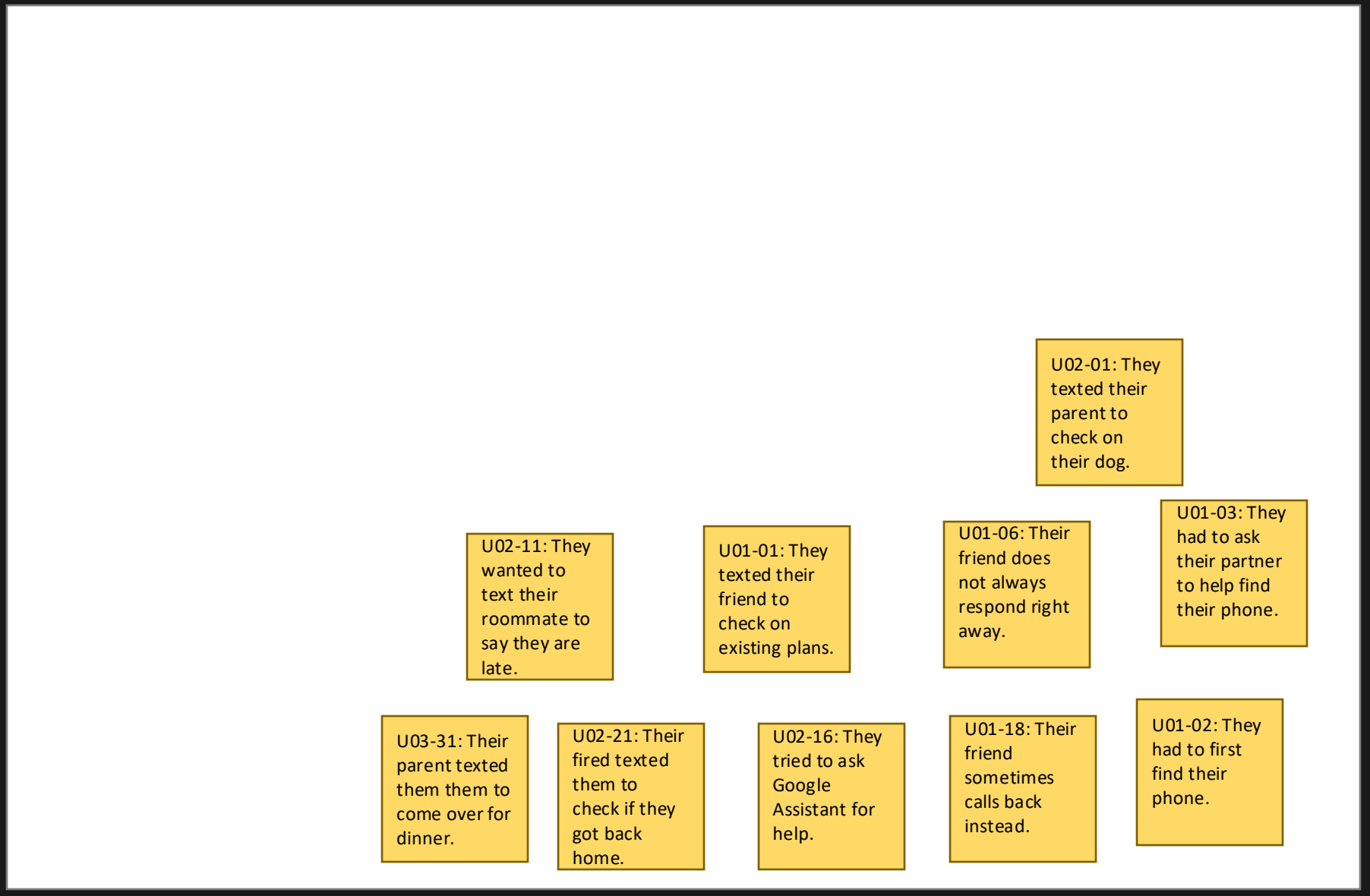

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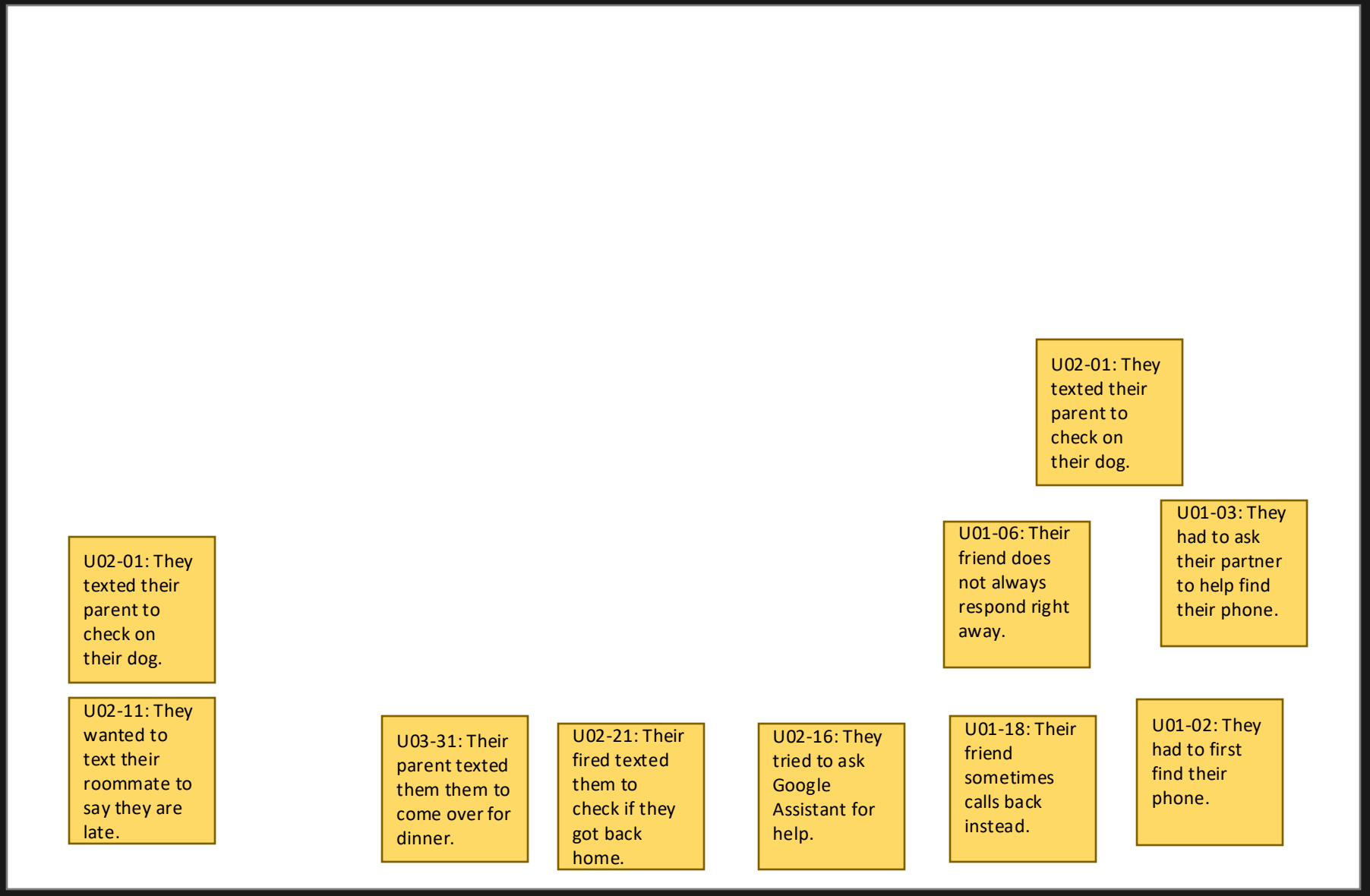

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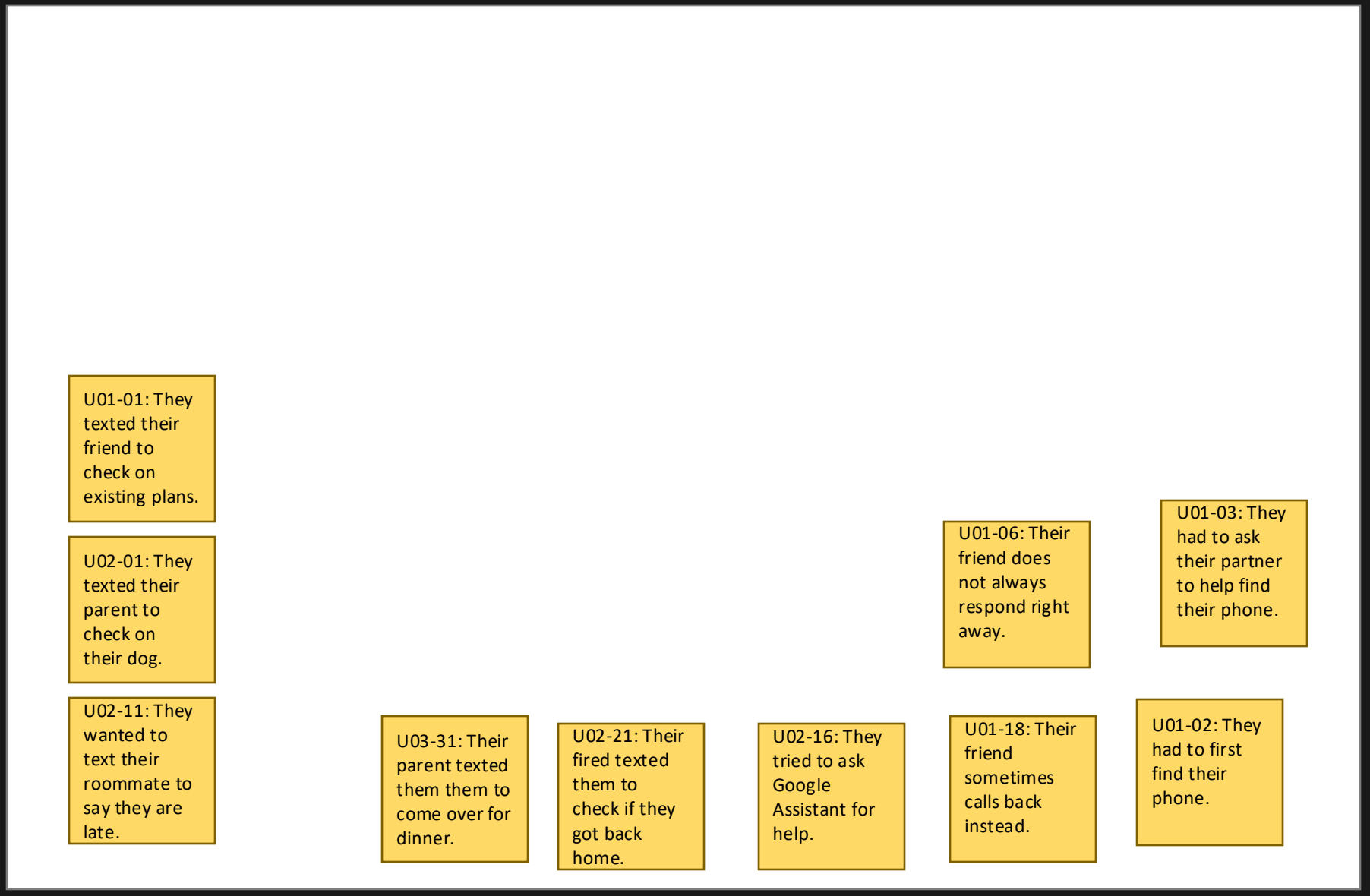

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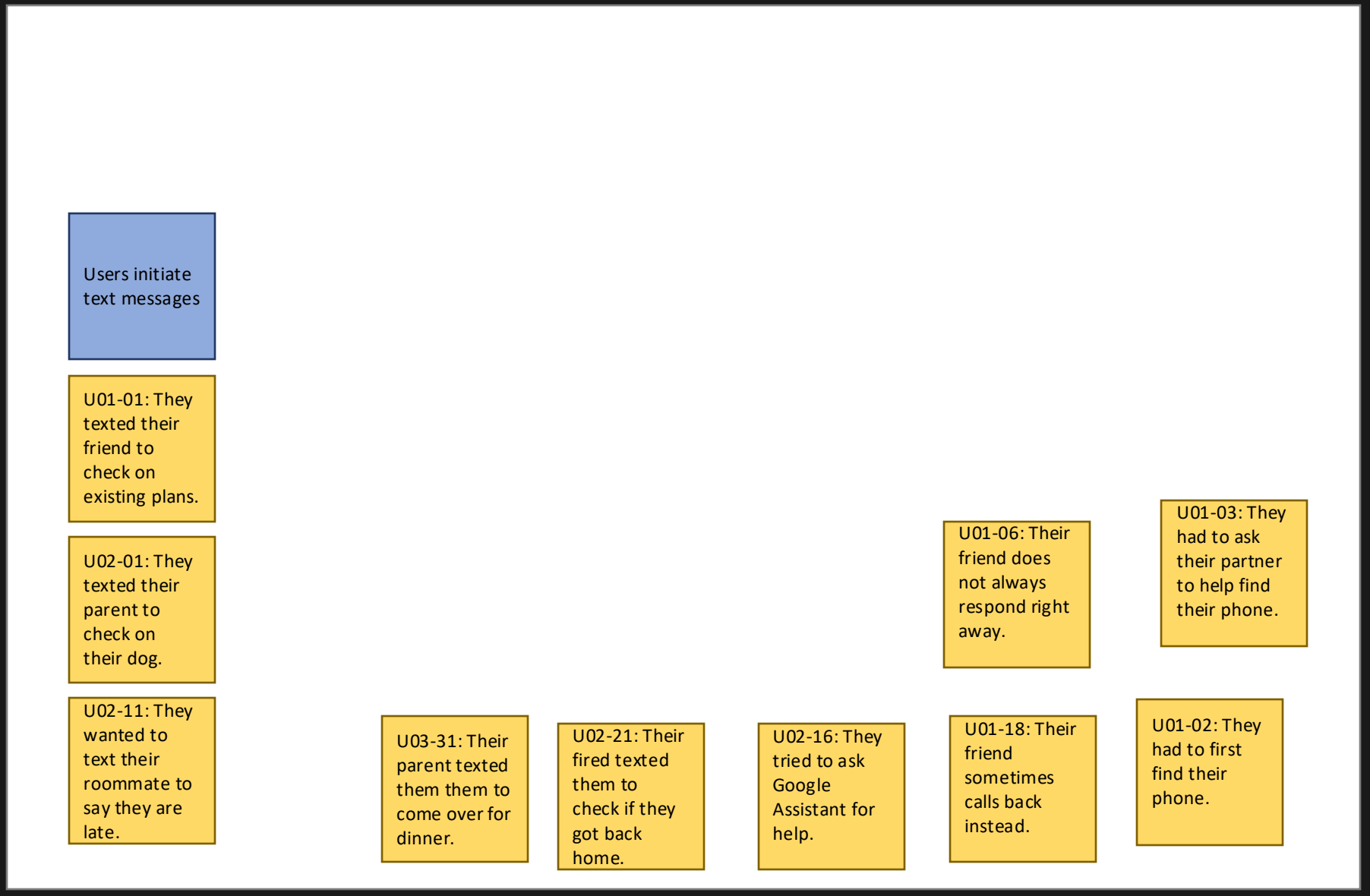

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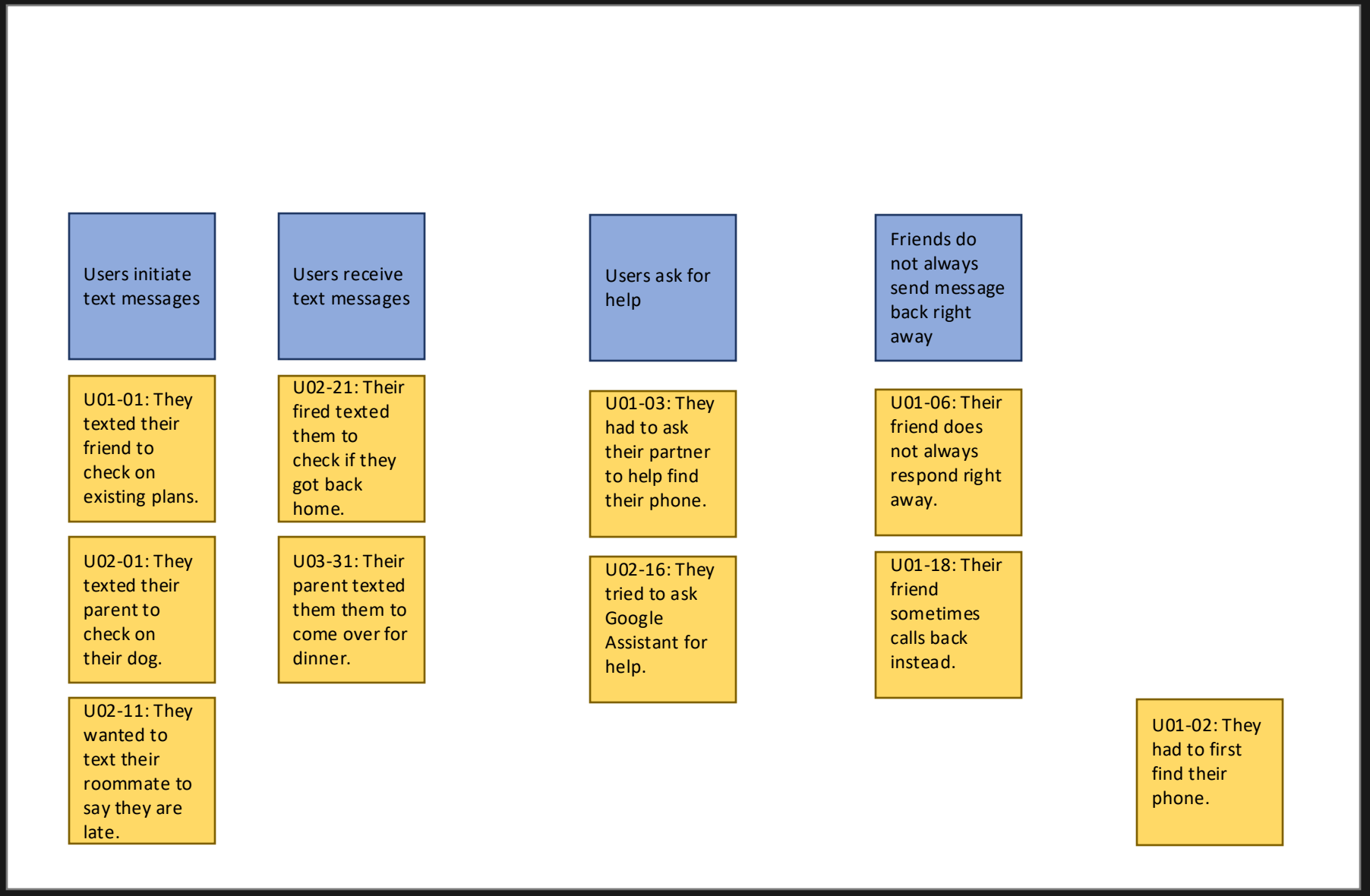

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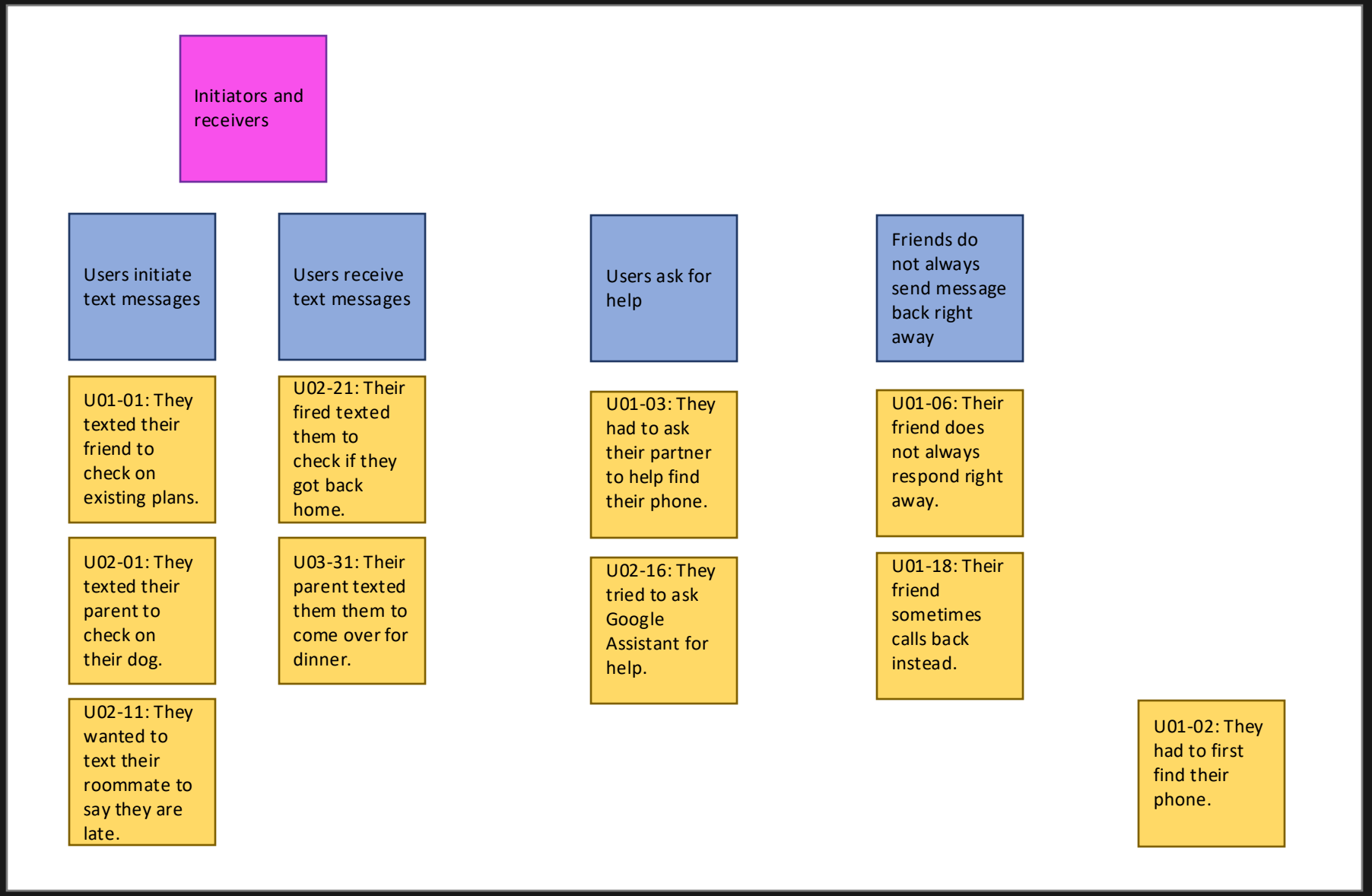


Affinity Diagram – Rules of thumb

- Each blue post-it should have no more than 5 yellow post-its below it and no less than 3.
  - If fewer than 3, maybe not a standalone category
  - If more than 5, maybe multiple categories
- Each maroon post-it should have no more than 5 blue post-its below it; no less than 3.
  - If fewer than 3, maybe not a standalone theme
  - If more than 5, maybe multiple themes
- Best done on a physical whiteboard with physical post-it notes.
  - There are virtual alternatives such as Miro Board (http://miro.com).

Please answer this question in Canvas

What best describes an Affinity Diagram? Select all that apply.

- ❑ It holds all interpretations.
- ❑ It groups interpretations into categories.
- ❑ It groups categories into themes.
- ❑ It helps researchers write a report that summarizes their findings.

You have 120 seconds…

DONE!

Where do the requirements come from?

Please answer this question in Canvas

Where could the requirements come from? Select all that apply.

- ❑ Interpretations.
- ❑ Breakdowns indicated in sequence diagrams.
- ❑ Virtual and physical artifacts in flow diagrams.
- ❑ Categories from affinity diagrams.

You have 120 seconds…

DONE!

Where do requirements come from?

"From every aspect of the models. Each item in the model is a candidate that informs requirements. Breakdowns are gaps that designs need to address."

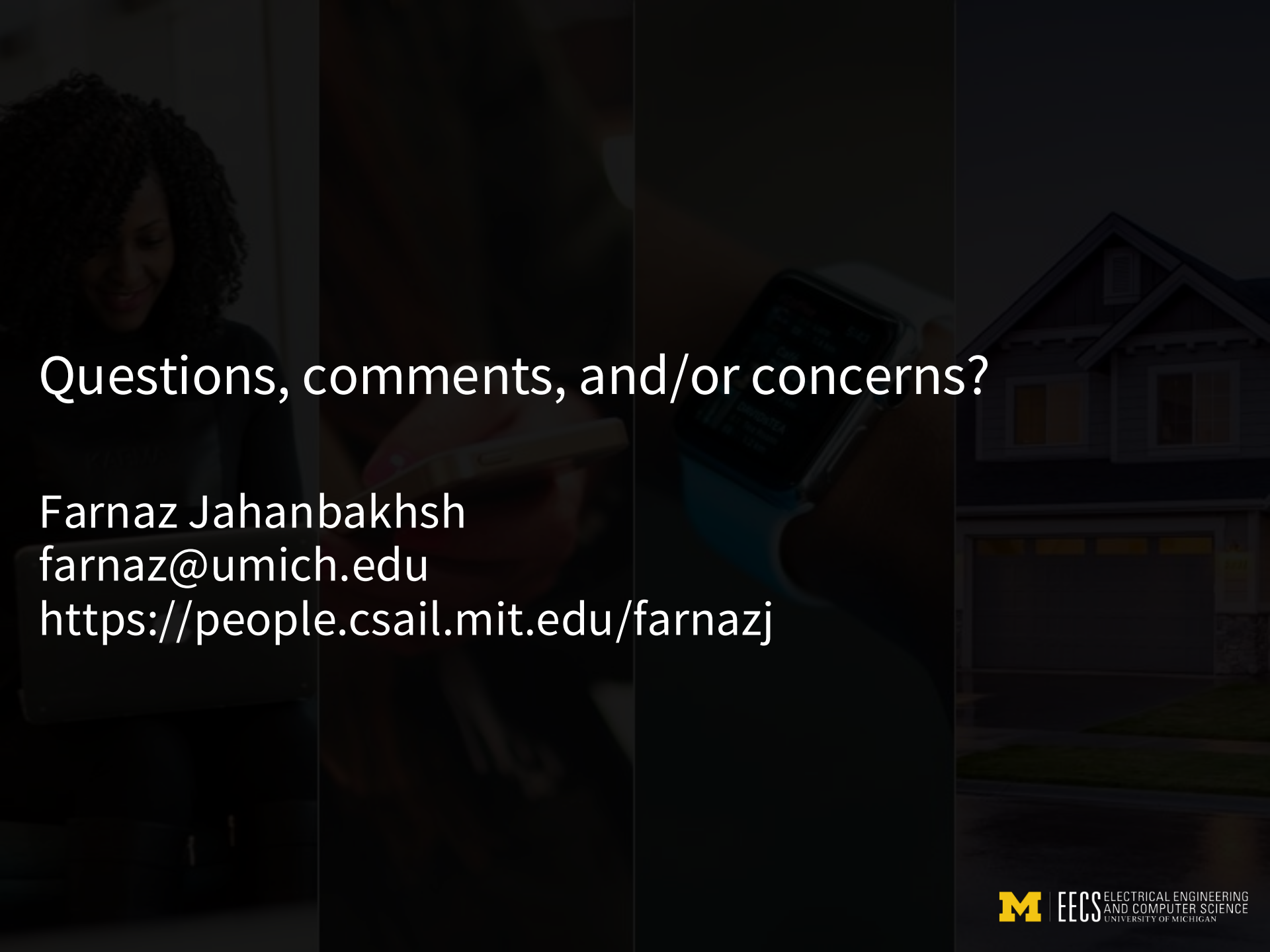
Please answer this question in Canvas

What office hour times do you prefer? Select all that apply.

- ❑ Monday/Wednesday mornings 9-12
- ❑ Tuesday/Thursday mornings 9-12
- ❑ Monday/Wednesday afternoons 12-3
- ❑ Monday/Wednesday evenings 4-7
- ❑ One morning and one evening time per week
- ❑ Something else? (email us!)

You have 120 seconds…

DONE!



Questions, comments, and/or concerns?

Farnaz Jahanbakhsh
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https://people.csail.mit.edu/farnazj