Note of paper

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1: Author study the Trigger-action programming ambiguity.

2. Examples of triggers:
(1) send email every day at 12:00pm
(2) turn on the coffee maker when sleep duration below 7.5 hours
(3) turn off the light when people leaving

3. Ambiguity
The lack of distinction between two trigger types.
Events: instantaneous signals like “door-bell ring”, “temperature below 50”.
State: Boolean conditions that can be evaluated to be true or false. Such as “it’s between 3:00-5:00pm”, “it’s raining”

Study 1: Program Interpretation
Number of participants: 60.
How long: Doesn’t mentioned.
Method: They conducted a web-based study on Amazon mechanical Turk and split the study into five parts to exam different aspects of TAP.
Result:
Expectations about triggers depend on the specific triggers.
Multiple event triggers are considered to be technically valid.
Expectations varied widely for multiple state triggers.
The responses differed depending on the type of trigger.

Study 2: Program Creation
Number of participants: 42
How long: 20 minutes
Method: They design a TAP interface to feature multiple triggers with different trigger and action types while also resembling IFTTT.
Result:
Multiple event triggers were used in practice.
Event and state triggers were hard to reason about.
Users had varied mental models for state triggers.
Users disagreed on sustained actions and forgot to undo them.
Users interpretations may be influenced by existing products.