

Problem

This poster explores interactions triggered by installations in museums and the variety of ways people engage with these installations. Some of these are in line with the designers' expectation and others diverge in various points through the journey of interactions. In other words, some people do not cover the full interaction process as intended, others demonstrate "unintended behaviors" or "uncommon behaviors" during the process.

We believe there is a need to generate a better understanding of this phenomenon. In this poster, we present an initial exploration. We will have a close look at this phenomenon, categorize and qualify the deviation. We then present examples and explain deviation model as tool to help capture the various stages of interaction (intended and actual).

Related Work

Many frameworks capture the interactive experience by people, for example as the M-Dimensions presented by Gonçalves et al [2], which demonstrates the ten dimensions that guide and evaluate interactive installations. Koeman [4] developed a framework that captures factors that influence engagement. We have developed a model that captures the deviation between the two trajectories, the designer's design intentions and the participants' forms of engagement [6].

Solution

We extend our initial stage of this research, where we developed a general model of the deviation of the intended and the actual experiences with interactive installations.

The model consists of various points that capture the process of interaction with installations with five stages (lingering, exploring, direct interaction, primary outcome, secondary outcome). These are visualized in two trajectories that illustrate deviation between a) designer's intention and b) the actual experience by people who interact.

In this poster we aim to further categorize the general model according to the shape of the two trajectories and then illustrate the observations of installations. For future research, we will look at how the deviations are formed and the corresponding reflections on the design process.

References

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Method

A General Model of Deviation

The categories are based on the visualization of the deviation between the intended and the actual experiences presented by Wei et al (2020) (Figure 1). The two experiences are represented by two trajectories that go through the five interaction stages. In ideal cases, where the actual experience fully matches the intended, the two overlaps (Figure 1 A). However, when the deviation happens at certain stages, the trajectory of the actual experience deviates from the intended (Figure 1 B and C).

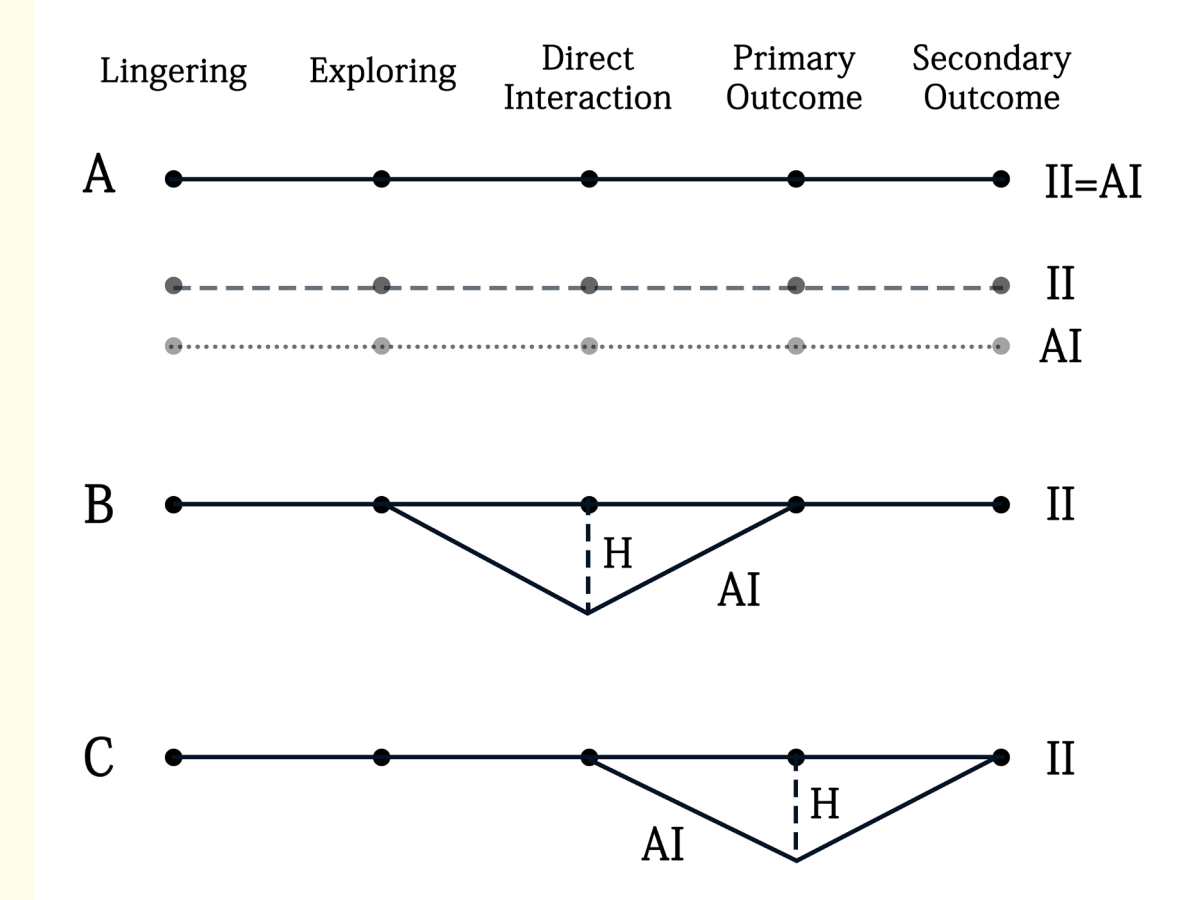


Fig. 1: A General Model for Deviation

Categories of Deviation

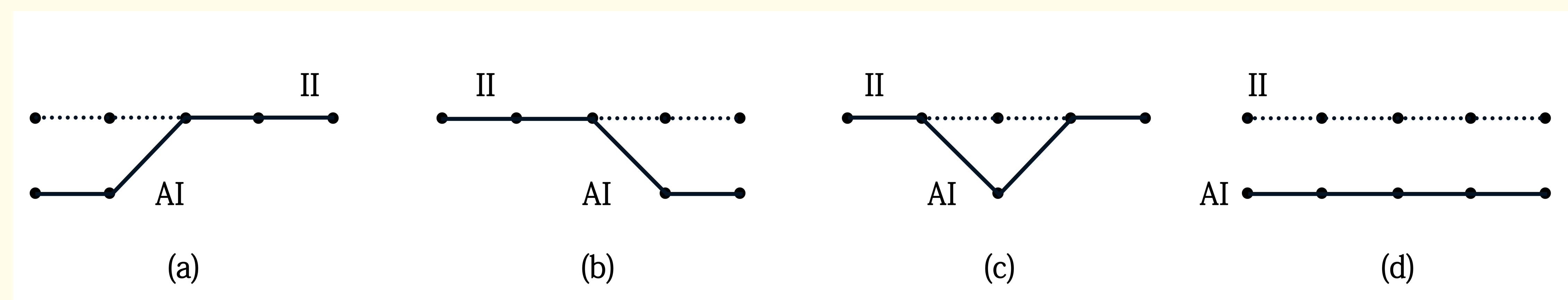


Fig. 2: The Visualization of the categories of the deviations: a) Hindsight; b) Off-Track; c) Temporary Deviation; d) Complete Detachment

Based on the non-systematic observation of 10 months in museums, galleries and outdoor space in London, and according to the shape of the two trajectories of the general model, we present four categories of deviations as in Figure 2. They represent four common conditions of deviations and are widely witnessed in case studies.

It is worth noting that the model will only act as a framework or reference for designers to help them understand how their ideas work in real-life scenarios instead of being a standard for evaluating the installations.

a. Hindsight: the actual experience is deviated from the intended experience from the beginning of the interaction process, but somehow goes back to the trajectory of intended experience at a certain stage.

b. Off-Track: the user only proceeds with the first stage(s) of the interaction process but somehow stops interacting and not going through all the stages as expected.

c. Temporary Deviation: the user behaves differently as expected after the first stage(s) of the interaction. However, the trajectory of the actual experience goes back to the intended experience after a while instead of being off-track.

d. Complete Detachment: the user does not interact with the installation in any form.

Case Study

Cloud Rings, Wonderlab, Science Museum

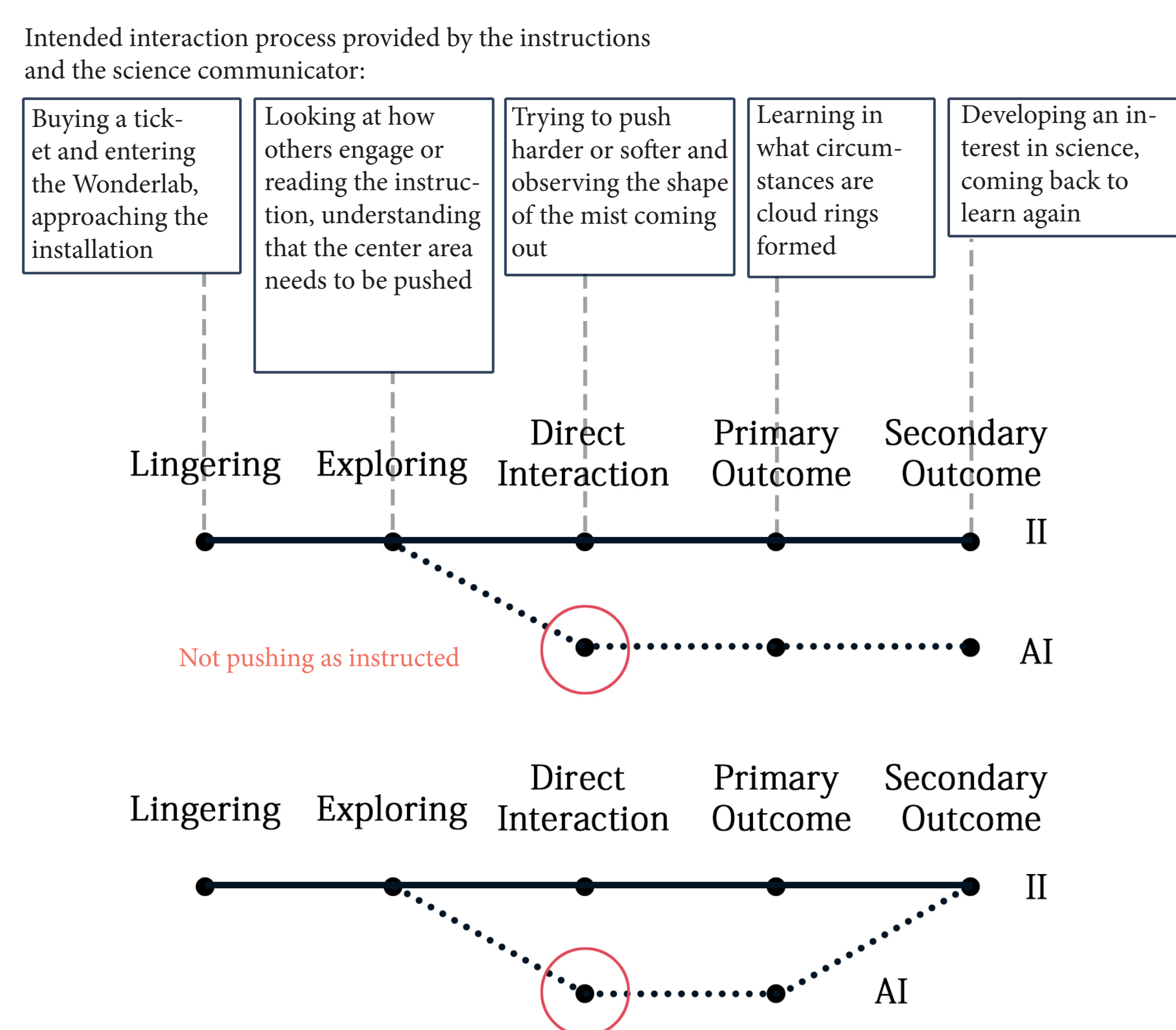


Fig. 3 (top): Off-Track and Temporary Deviation
Fig. 4 (left): Cloud Rings installation



Cloud Rings is an installation in Wonderlab that invited the participants to push the center area and observe the shape of the mist coming out of the hole, introducing how the cloud rings are formed. Through observation, some participant simply push the area without adjusting their strengths as instructed, and the knowledge is not generated. The deviation could be Off-Track or Temporary Deviation.

Earth's Plates, Natural History Museum

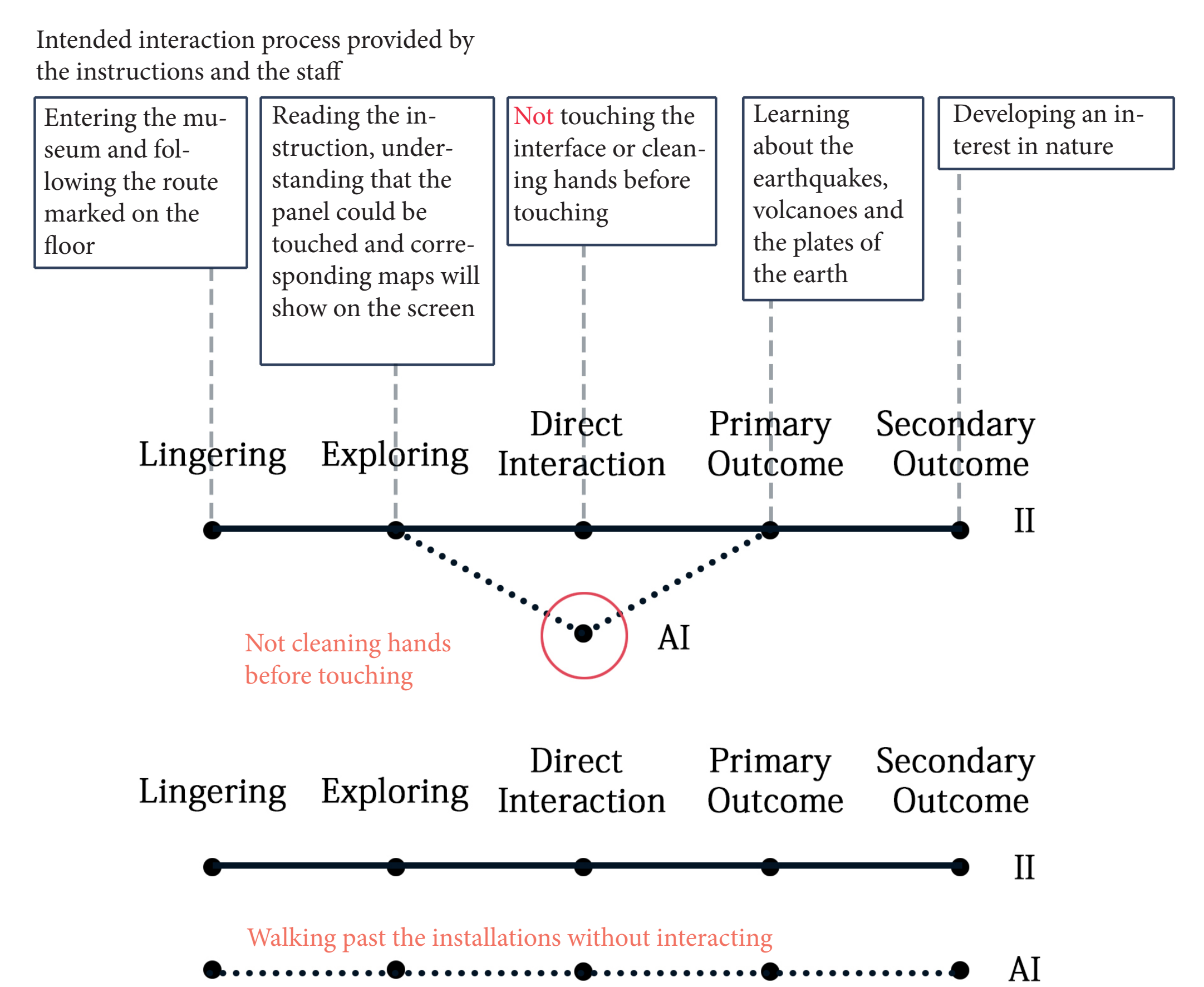


Fig. 5 (top): Temporary Deviation and Complete Detachment
Fig. 6 (left): Earth's Plates installation



Earth's Plates is an installation that has three touching spots on the panel and a screen. The three spots represent volcanoes, earthquakes and plates' boundaries from left to right, and the corresponding map shows on the screen when touched. In pandemic period, visitors are suggested not to touch or to clean their hands before touching. The deviations are Temporary Deviation or Complete Detachment.

