Enhancing User Experience through Effective Transitions

Detailed course plan for the proposed course at India HCI 2018

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Why the course?

Transitions refers to visual changes that take place in the user interface. Over the years, transitions have become an integral part of the User Interface. They have helped enhance the usability and user experience. Today, most transitions are used as a means to improve the User Experience (UX) by creating engaging animations in the interface. However most transitions that use engaging animations or sophisticated motion graphics merely as a means to dazzle, impress or amaze users. But we believe that transitions when employed correctly, can be powerful cognitive devices. They can help users form accurate mental models of complex information and task structures, navigate with ease, anticipate outcomes, and avoid errors. Drawing from time tested principles from the fields of animation, storytelling, and perception studies, this course will teach participants on how to employ good transitions to design effective user experiences.

The ability of transitions to convey meaning has long been known in Psychology of Motion Perception since 1950s. Hans Wallach [1] experiment demonstrates that people assign meaning to motion of primitive objects. We have researched how transition in interface design convey meaning to the user and understood the factors which influence the meaning transitions convey. We have come up with principles of how and why transitions should be used in interface design.

This course aims to educate people on why and how transitions are an important aspect of the interface. The course will teach the attendees, how transitions can be used as a means of communication and help them use transitions to solve interface design problems.

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Who can attend?

The course is suitable to individuals who are interested in the design of interface design with specific attention to the experience they provide. This course will be useful for UI/UX practitioners from the industry and academia. The course is structured such that both novice and expert attendees will benefit from this course.

What will be taught?

The duration of the course is 90 minutes. We have divided the course into following parts:

Introduction to Transitions (*15 minutes*): This section will introduce the attendees to background of transitions and how they are used as means for communication. A discussion on the history and influences on transitions will be done.

Elements of Transitions (*30 minutes*): This section will explain important factors which should be taken into consideration while designing a transition. The factors are:

1. T**iming:** The users' attention toward a transition is governed by the duration of the transition. Hence, the transitions should be timed accordingly. The timing of transitions should not be too fast/too slow due to limited time succession rate of human mind.
2. **Reference Frames:** Based on Psychology of Motion Perception, the motion of a surrounded object is heavily influenced by the motion of surrounding object. This is demonstrated by Hans Wallach [1] experiment.
3. **Animate Motion:** Users associate meaning to interaction between interface elements. The speeds at which the elements interact with one another convey different meanings to the user about the interaction. This is demonstrated by Michotte [2] and Heider and Simmel [3] experiments.

5 minutes break will be taken after the last section

Principles of Transitions (*40 minutes*): This section will introduce the users to the Principles of Transitions. The principles are categorized by understanding how a transition helps the user. Several examples and techniques will be given to help the attendees to use the principles in practice. The principles of transitions are:

1. **Causality:** How transitions are used to enforce cause and effect relationship to the interface. Causality includes feedback which the user gets when he gives an input to the device and how cause and effect relationships help the establish relationships between interface elements.

2. **Focus:** Helping the user focus only on the elements he require to interact. This helps in reducing the cognitive load of the user while performing specific tasks.
3. **Creating Virtual Space:** Transitions can help in designing the navigation of the UI. The skeleton of the interface can be defined by adding transitions in between states. These transitions are governed by the pre-defined rules of navigation design.
4. **System Status:** Notifying the user about the changes in the interface. These transitions are triggered only on specific events.
5. **Identity:** Custom transitions which are used as part of organization's branding.

How many participants can attend?

We propose to keep the class size to 20, with a maximum limit of 25.

References

[1] Wallach, H. 1959. The perception of motion. Scientific American 201 (July): 56–60.
[2] Michotte, A. 1963. The Perception of Causality. (Translated by T. Miles and E. Miles.) Methuen, London.
[3] Heider, F. Simmel, M. 1944. An experimental study of apparent behavior. American Journal of Psychology. American Journal of Psychology 57: 243–259.