

Action Sloping as a Way for Users to Notice a Robot's Function

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This paper focuses on the problem that will arise in the near future from multi-function robots. Users will have to read thick operation manuals to use them. If users can use these robots without reading difficult manuals, it will improve user efficiency. We then proposed *Action Sloping* as a way for users to naturally recognize a robot's function. It provides the robots with gradual feedback signals when the user performs given actions. By changing the intensity of the feedback signal according to his/her action, it encourages him/her to perform an action that will trigger the robot's function. In our experiments, we made three kinds of feedback behaviors according to Action Sloping and one non-feedback behavior as the control condition. The participants of the experiment tried to find a robot's function and the latencies to first finding the triggered action were measured. An analysis of the latencies showed the difference between the sound feedback group by Action Sloping and the control group. This result showed that the effectiveness of Action Sloping was partially supported.