

# Digital drawing as mediation and expression for MoCap performance

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In this study, we use digital drawing to experiment and create relationships between animation and performance. We record actors' movements with motion capture (MoCap) technology and apply drawing as a means of mediation and expression, generating 3D geometry as a foundation for animation. Through motion capture, we study and reflect on how animation principles and drawing concepts can be expressed by different performances, and how they can offer animation a variety of ideas that can be used to create relationships between each drawing in a three-dimensional space.

Projects based on MoCap technology usually use actors to drive digital characters. Although artists use drawing to design the characters, the direct relationship between drawing and performance is mostly left unexplored. Furthermore, after the characters' 3D models are created, an ongoing discussion debates whether MoCap data should be used directly to create the characters motion through retargeting techniques, or if animators should use the data only as a starting point, as they do with video references, and create the performance themselves using keyframe animation.

As alternatives, we develop different methods of expressing the performance through digital drawing without resorting directly to retargeting or keyframing. Instead, digital drawing is used to create the 3D models, opening possibilities for gesture and for interpretation of the actors' movement. The performance is created exploring simple concepts that might be useful for drawing the body in motion, rather than starting from a script. In a MoCap studio, actors experiment with simple concepts, such as squash, stretch, twist, turn and balance, and more complex actions such as walking or playing hide and seek. By correlating different ideas and using gesture and rhythms to study naturalistic motion we hope to create different visual expressions in animation.

## **Keywords:**

digital drawing, animation, performance, motion capture, acting