

Creativity $\neq$ Generativity: A Case Study of Attentive Machine Learning in Dance Performance

Case study: *Amniotic*, a multimedia dance theater work

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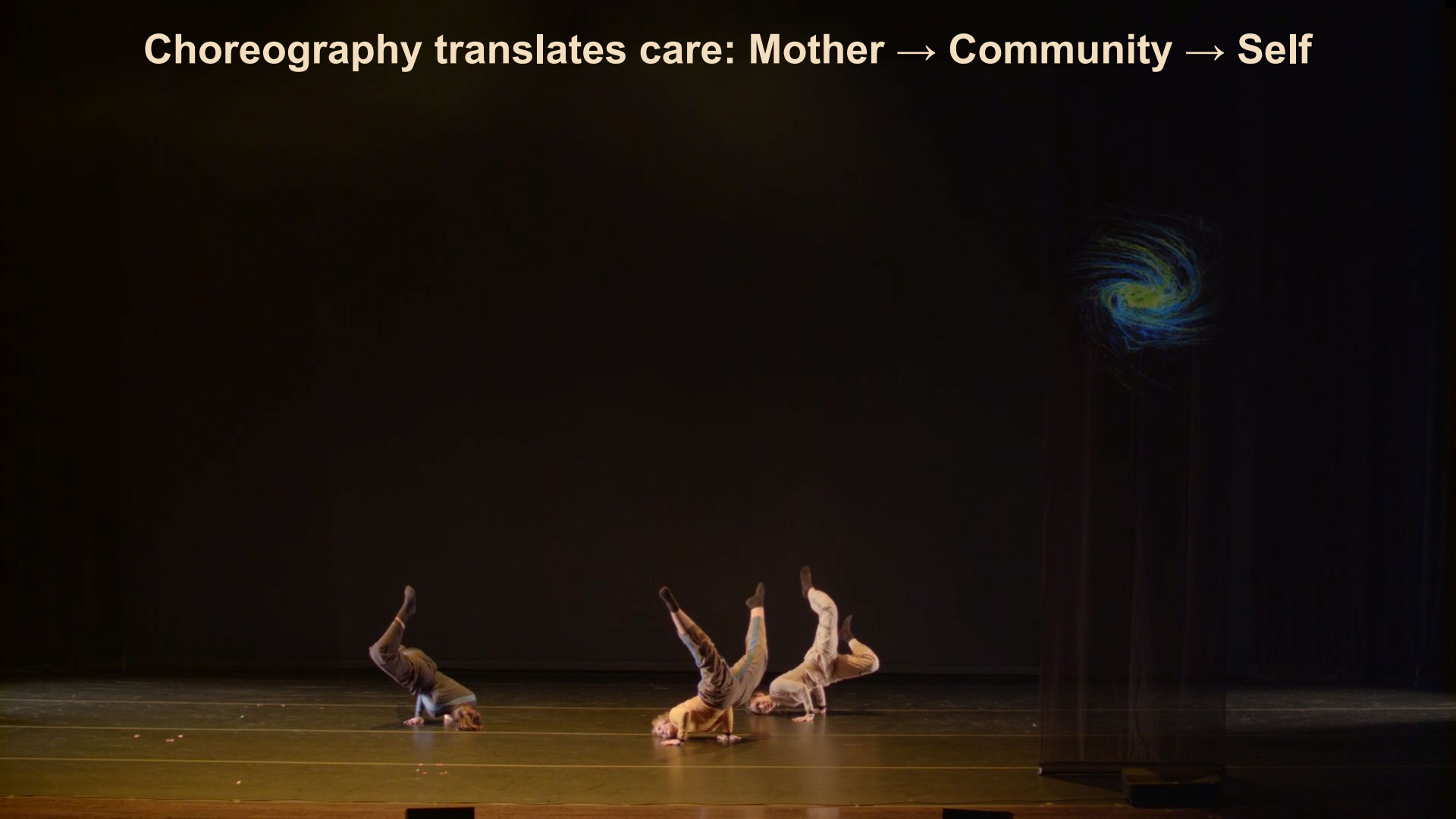
University of Washington



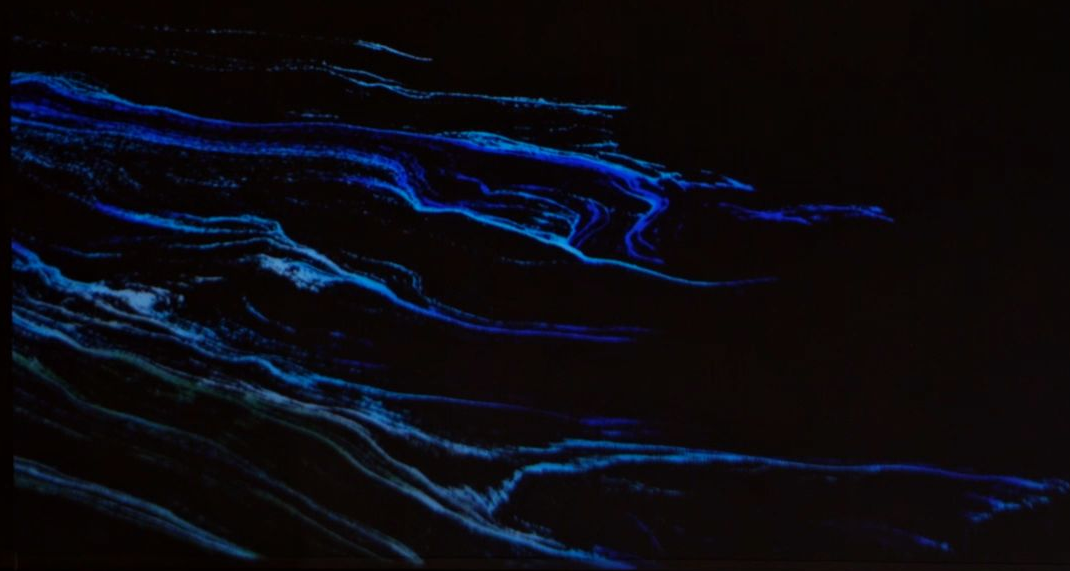
My body remembered before I did.



Choreography translates care: Mother → Community → Self



Technology becomes her way back.





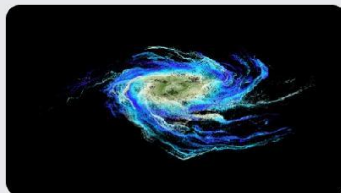
Another performer listens from backstage.

Non-motif movements

No audiovisual response



0 sensor1_class	
0.8807 confidence1	
0 sensor2_class	
0.9879 confidence2	
0 sensor3_class	
0.8711 confidence3	
0 sensor4_class	
0.9778 confidence4	
0 sensor5_class	
0.9993 confidence5	
0 sensor6_class	
0.9453 confidence6	



Stillness and silence

Motif movements recognized → Multimedia system responds immediately

Support of community



7 sensor1_class	
0.8421 confidence1	
3 sensor2_class	
0.3743 confidence2	
0 sensor3_class	
0.7981 confidence3	
3 sensor4_class	
0.666 confidence4	
6 sensor5_class	
0.3127 confidence5	
8 sensor6_class	
0.4514 confidence6	

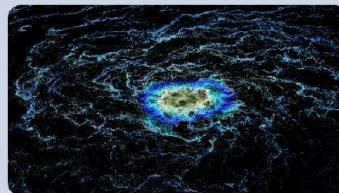


"Surging undercurrent."

Touch of compassion



6 sensor1_class	
0.8453 confidence1	
0 sensor2_class	
0.567 confidence2	
6 sensor3_class	
0.7885 confidence3	
0 sensor4_class	
0.821 confidence4	
6 sensor5_class	
0.6928 confidence5	
0 sensor6_class	
0.8511 confidence6	

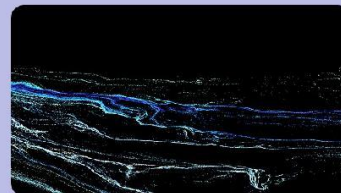


"You are supported."

River of bodies



9 sensor1_class	
0.8453 confidence1	
0 sensor2_class	
0.567 confidence2	
6 sensor3_class	
0.7885 confidence3	
2 sensor4_class	
0.821 confidence4	
3 sensor5_class	
0.6928 confidence5	
0 sensor6_class	
0.8511 confidence6	



Moving with performers

The machine learned when to remain silent.

Dempster, A., Schmidt, D.F., & Webb, G.I. *MiniRocket: A Very Fast (Almost) Deterministic Transform for Time Series Classification*. Proc. KDD, 2021.

10 motifs + 1 negative class

1,298 samples, 3 trainers, 8 dancers

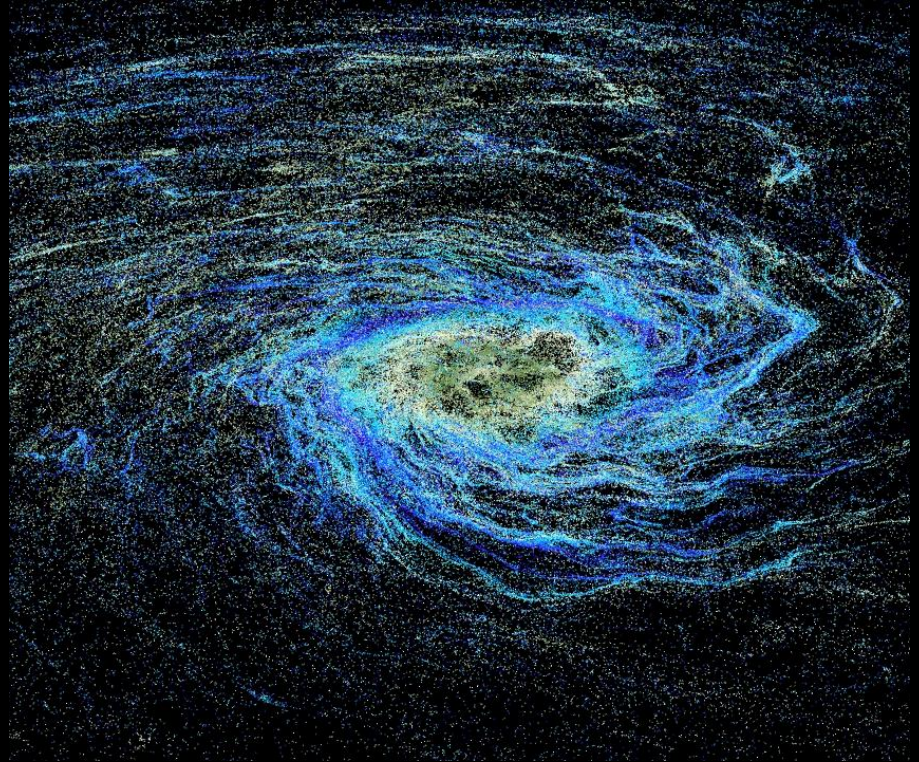
91.49% mean accuracy

<50 ms end-to-end

Imperfect translation can still be useful.

The system sensed motion,
not memory or care.

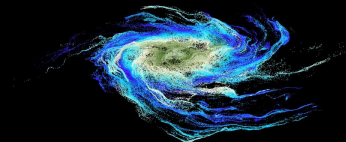
Dasha Orlov, “...I felt like I was
collaborating with the digital
system.”



Creativity $\neq$ Generativity

**The machine did not generate the dance.
It helped us listen.**

Creativity can live in attention, translation, and response.



Bring it to the surface.



