Data-driven digital entertainment: a computational perspective

数据驱动下的数字娱乐：可计算观点

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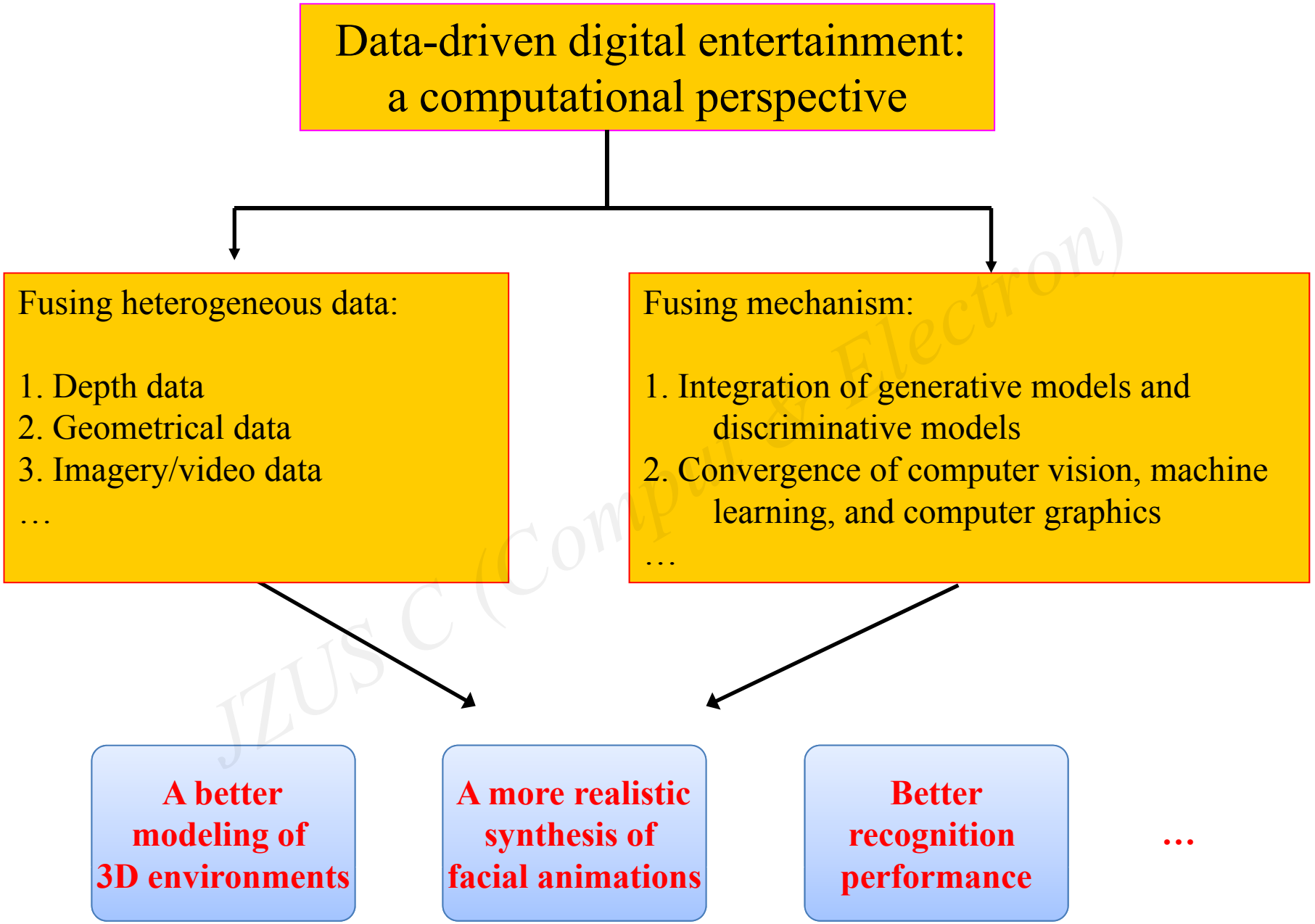
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- Since heterogeneous data (e.g., depth data, geometrical data, and imagery/video data) may have different discriminative powers and are intrinsically complementary for certain tasks, it is desirable to leverage all the information available in digital entertainment.

- Typical approaches of data-driven computation are ***generative models*** and ***discriminative models***.

- The convergence of different research fields (e.g., computer vision, machine learning, and computer graphics) and the resulting technologies from the research in these fields will be attractive for digital entertainment. In fact, how to develop a more interpretable data-driven computational model still remains a challenge.

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Fusing heterogeneous data:
1. Depth data
2. Geometrical data
3. Imagery/video data
…
Fusing mechanism:
1. Integration of generative models and discriminative models
2. Convergence of computer vision, machine learning, and computer graphics
…
A better modeling of 3D environments
A more realistic synthesis of facial animations
Better recognition performance
…