

Logo of Polimi and NearLAB

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MILANO 1863



# Implementation and Assessment of an Augmented Surgical Training Curriculum with a *daVinci* robot: an experimental study

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Master of Science in Biomedical Engineering – Ingegneria Biomedica  
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# Virtual Reality Simulators

Breadcrumbs

Before:

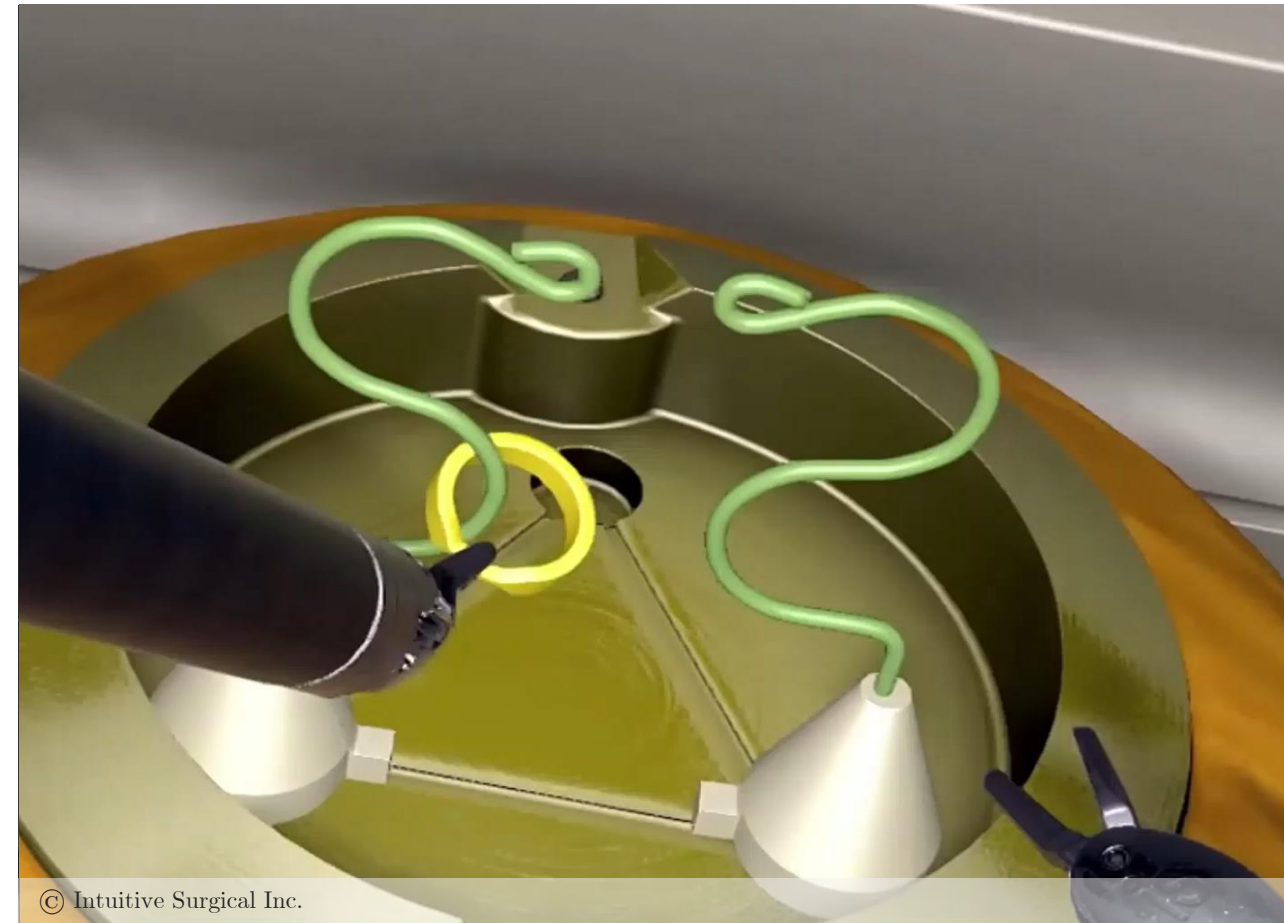
- Dry-lab phantoms
- Animal models

Nowadays:

- **Simulated Environments**

- ↻ Infinite repetitions
- 🔧 Customizability
- \$ Low costs
- 📈 Progress tracking

Performance in VR simulators is  
**correlated to clinical performance**<sup>[2]</sup>

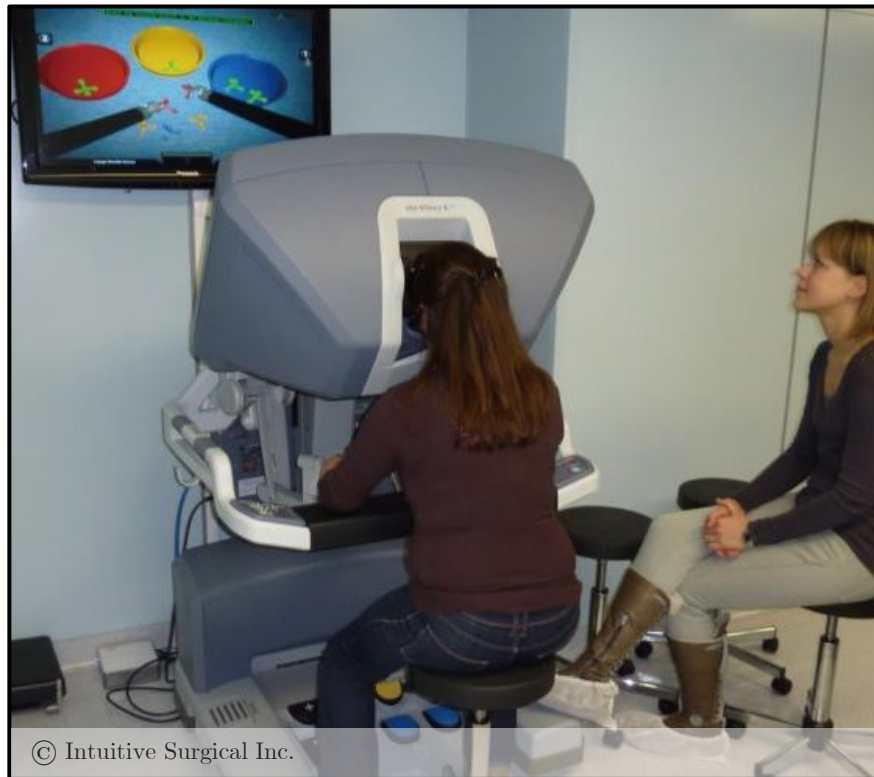


Slide Number

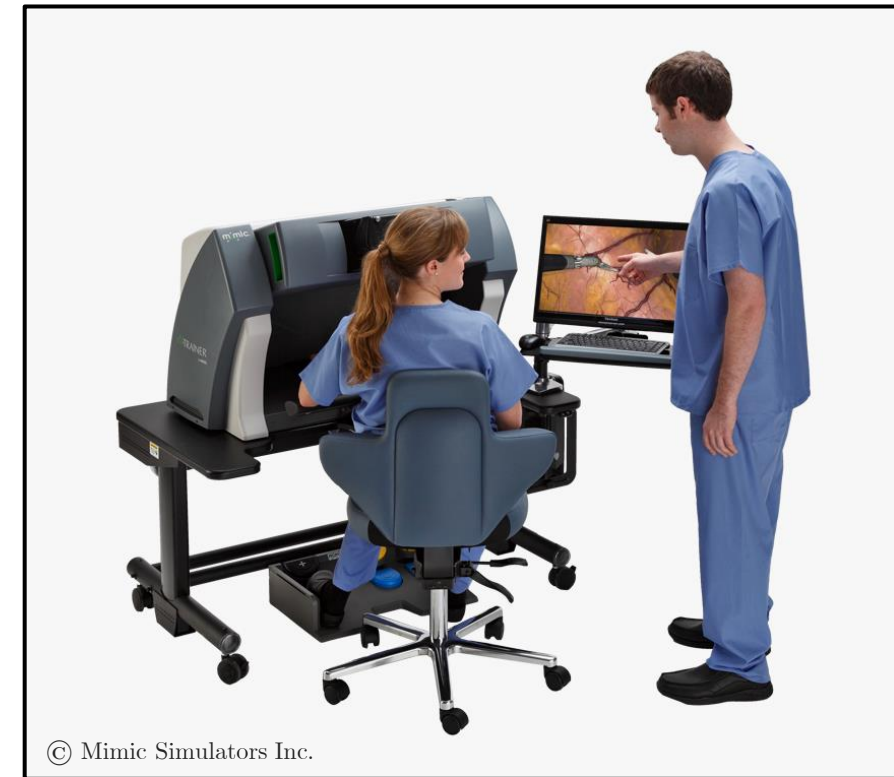
# State of the Art

## Commercial Solutions: examples

*daVinci SimNow – Intuitive Inc.*

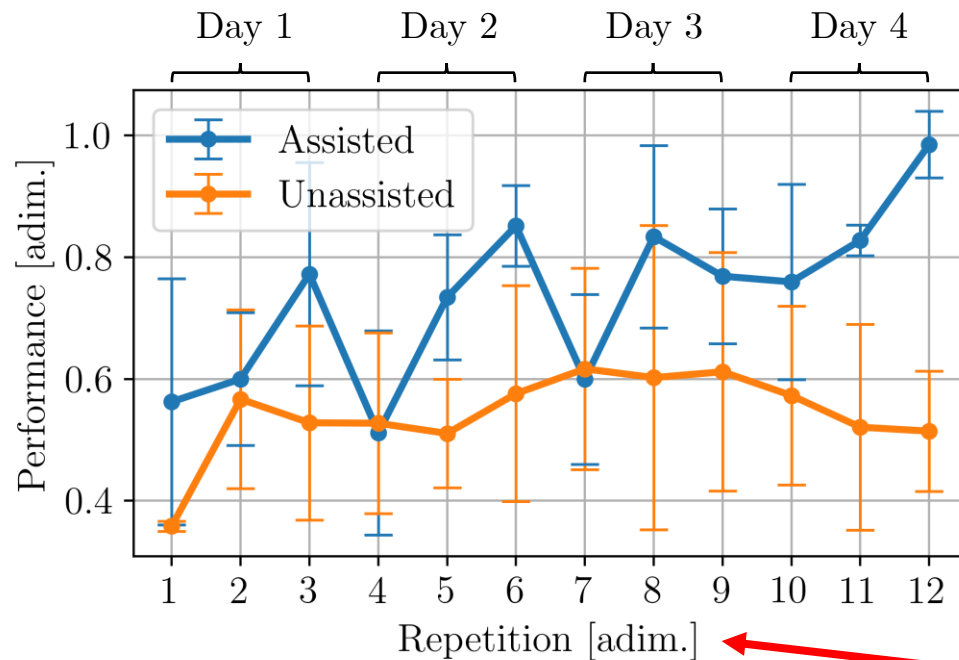


*Mimic dV-Trainer: Mimic Inc.*



# Results

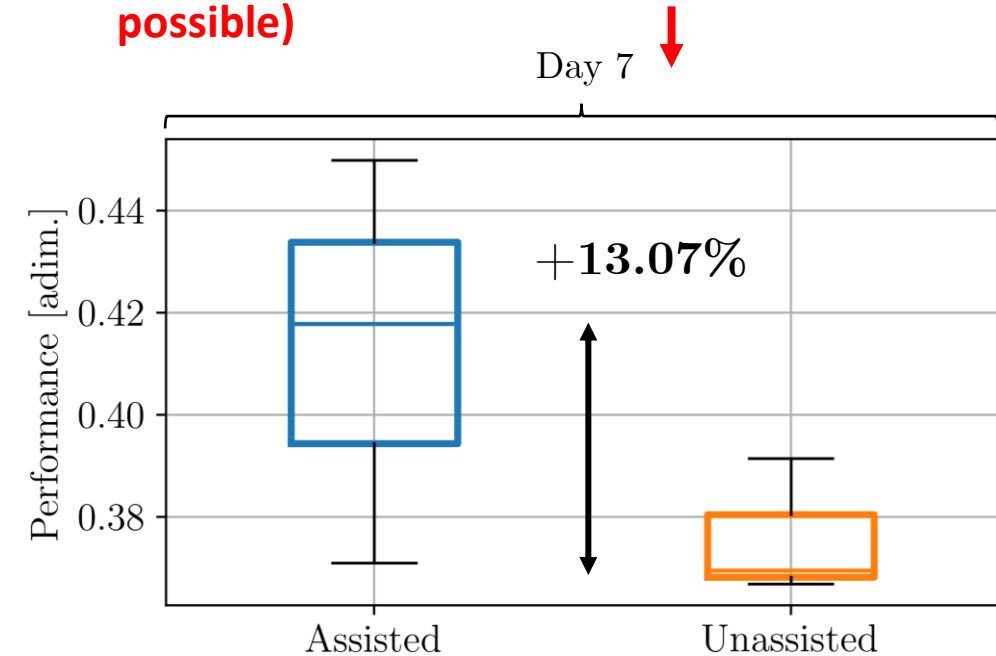
Graphs labels and legends must be readable



Units of measure ON ALL PLOTS

**Assisted** subjects execute tasks with a **consistently better performance**

Consistent font between text and graphs (wherever possible)



**Assisted** subjects experienced an **improved skill transfer** towards non-assisted executions