

Toolkit for Illustration of Procedures in Surgery



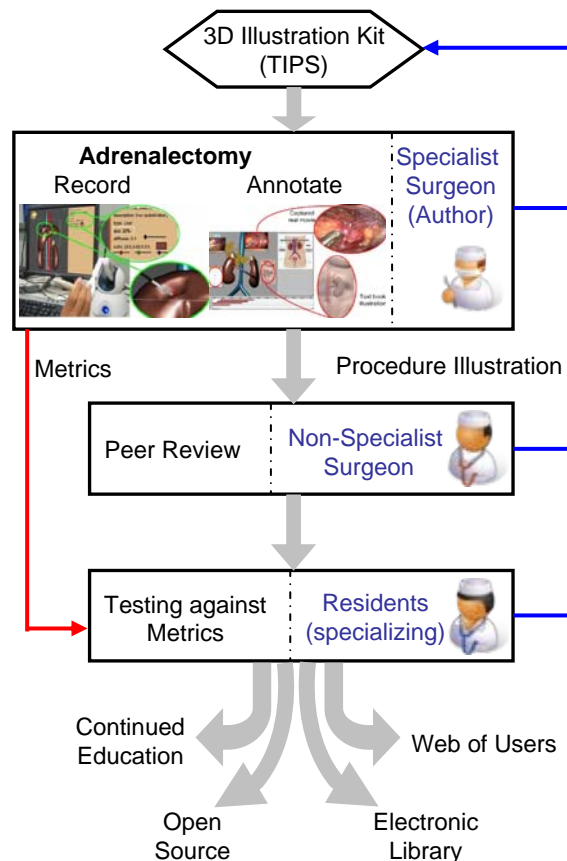
SurfLab
 Dept. of CISE
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TIPS is a new collaborative partnership of surgeons and IT researchers leveraging low-cost hardware and advanced software. Such illustrations are needed for publishing, documenting, teaching, instruction and continuing education outreach and for legal proceedings involving medical documentation.

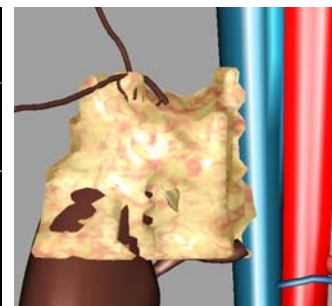
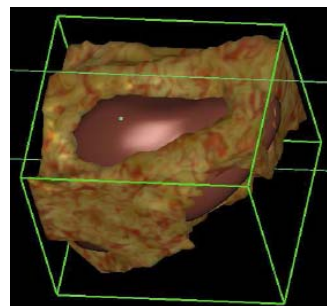
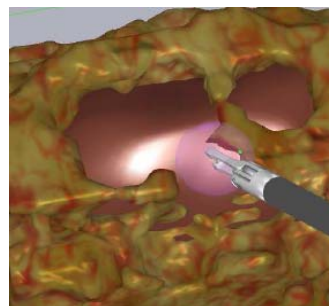
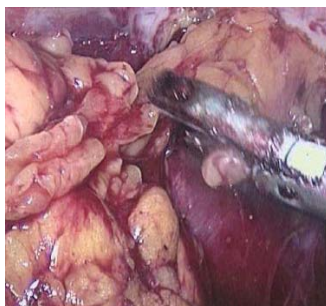
Our Goal is creating and broadly disseminating a low-cost, computer-based, 3D interactive multimedia authoring and learning environment including *force feedback* for communication of surgical procedures – that places the specialist in control and at the center of content creation

The Approach is based on a unique novel paradigm that differs both from commercial training tools and academic surgery simulation in that it puts the specialist surgeon as the author in control and at the center of all content creation. This will open up a completely new channel of communication and outreach between surgical specialist and practicing surgeons or surgeons-in-training (residents); and it addresses both the overarching strategic UF goal of being a leader in education and its focus on biomedical excellence.

Originality: No such system exists to date. In particular, existing software-based commercial surgical training tools are written by computer programmers and optimized for fixed basic tasks such as suturing. No complex procedures can be illustrated by the specialist in any available commercial or academic tool.



Evaluation and Validation flow chart



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Publications

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