

Panel – Presentation

I worked basically on two long-term clinical projects:

- Liver surgery planning (resection, liver transplantation, RF ablation) and
- Neck surgery planning (selective, superselective, radical)

In both cases: advanced visualization was truly helpful

- Liver surgery planning gave rise to adv. vessel vis.
- Neck surgery planning for illustrative visualization due to the high density of crucial structures

In both cases: quantitative information was essential as well:

- Resection volume, tumor volume, vascularized territories
- Distances to risk structures



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Outlook:

- We need more integration of modalities and integrated visualization/image analysis for PET/CT/MRI
- We also need to incorporate findings from endoscopy
 - Again: qualitative and quantitative information is essential
- Among the many techniques that we have available we should select based on user studies and perception-based experiments.
- Better shape and depth perception is the ultimate goal of advanced 3D visualization techniques. We must strictly check whether we achieve this goal.

