



## Nassir, what in your view is so special at CARS?

In 2009 and 2010, we started to create a new event called IPCAI and at that time, we were deciding, do we do an independent event or do we join CARS? The reason we co-located with CARS was CARS was one of the conferences that had a few characteristics that I like. One was there was a mixture of academia, in terms of engineering, but also a good number of surgeons and radiologists were coming, and there was also some industrial representation. For computer-assisted interventions, which is my focus, having surgeons in the loop and also industry is absolutely necessary. For image processing, which was the focus of MICCAI, this was not absolutely required. You had the imaging data, then you didn't need to be in daily contact. I believe you did, but 90% of the committee didn't have daily contact with clinicians, they were doing their work on their stations with imaging. Then you go to the surgery room and try to do computer-assisted interventions, you can't do it. You have to have the latest industrial solutions, where we'd work with the most advanced technology, while surgeons have to be in the driving seat, they have to define all the requirements. They are the final users, so we needed to have them. We chose CARS because of this nice mixture of these three communities together.

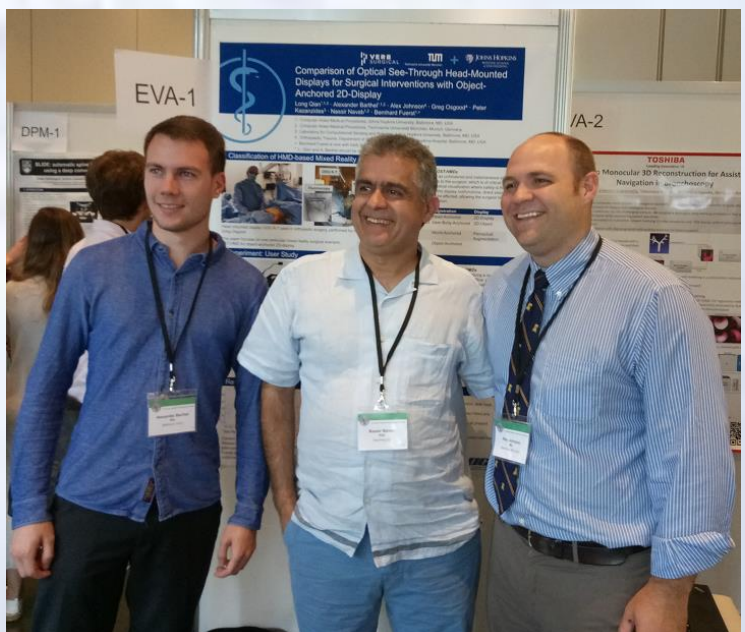
## Are surgeons conscious of this responsibility that they should take?

Very good question. It really depends, I would say the majority are not. Not that it's any fault of them, they have been usually looked at as a final customer, which receives a solution

and gives his opinion on that solution. Only the big companies will use what they were calling opinion leaders and consultants, to lead them in designing solutions. I worked for Siemens for nine years before joining academia and these very sparse communications in a rare workshop of one week per year, and only working with a selected few opinion leaders who are not representative of the community, because they're only early adopters and they're reactive, it was not the right way. We have to enable the majority of surgeons to know that they have to be the person to do research with us.

## Academia should have involved them more, and they were a bit neglected?

They were neglected, but I think it was also their fault, they were more comfortable to work with simulator data, because it was easier than talking to complex surgeons who ask difficult questions. It was a two-sided story. On one side it's easier for an engineer to get a well-defined problem and then go



**Nassir with Alexander Barthel (left) and Alex Johnson (right)**