

A Short History of The International Journal of Virtual Reality



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Abstract— This brief history of the IJVR serves to inform those readers who have not previously been subscribers about the origins of the journal in the USA and the transfer of the editorial operations to China.

Index Terms— History, journal, IJVR, virtual reality, publishing.

I. THE INITIAL CONCEPT

I am currently retired from The University of Colorado at Colorado Springs as a professor emeritus of physics and energy science. In 1989, while teaching at Caltech in Pasadena, California, I got the idea of setting up a publishing firm for scientific books using the latest publishing technology. With a small group of colleagues and investors I started IPI Press in 1990. Three years later I began to consider publishing a scientific journal with digital multimedia on an accompanying CDROM. I looked around for a discipline that would be particularly suited to such a format, and decided on virtual reality. At the time there was great interest in the USA and around the world in VR, and it seemed really useful for academicians and researchers to publish not only printed versions of their papers, but also provide VR multimedia and application software to their readers.

It is hard to remember just how primitive computer technology was at that time. In 1993 there was no internet, at least none on a practical level, the fastest modems communicated at 1200 baud directly between computers over a phone line, hard drive space was extremely limited, and RAM was very expensive. Even CDROM readers, let alone burners, were extremely uncommon, and the 650 MB capacity of each disk seemed like an infinite amount of storage.

In order to make the journal as international as possible, I decided on two unusual policies. First, the subscription price would be the same everywhere in the world, despite the fact that the mailing cost was far higher overseas than in the USA. Second, we would encourage submissions from researchers and academicians who were not all that fluent in the English language by taking complete responsibility for making grammatical corrections and even doing extensive rewriting of the articles for greater clarity.



II. GETTING ORGANIZED

I consulted leaders in the field, examined other periodicals in the discipline, and attended conferences to learn what I needed to know about VR, multimedia, and digital publishing. By the summer of 1994 I had assembled a team to produce the journal. The chief person I hired was an extremely competent managing editor, Fred Henderson, a retired educational administrator with a doctoral degree. The managing editor is in overall charge of all the day-to-day operations and business dealings, and Fred held the only position that would ever be full time. My university agreed to serve as the official host and made my work with the journal part of my official job assignment. My own formal title was editor-in-chief, with responsibilities to make overall policy decisions. A number of other people were hired to do part-time work, and we contracted with a local printer for printing on a web press. Finally, we contracted locally for the mastering of the CDROM and sent that master to the East coast for mass duplication. I had a formal agreement with the University that no money would pass between it and the IJVR either way, because officials had recently experienced the misfortune of another journal they hosted going out of business and leaving the University responsible for a huge debt.

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III. EARLY ISSUES

The first issue of the journal, officially published the spring of 1995, used MS Publisher to lay out the printed copy and software now called MS Help to encode the CDROM. We considered it essential that the CDROM have a copy of each paper with embedded graphics and images, plus hyperlinks to additional multimedia. By the second issue we incorporated the new HTML language that was being developed for the internet. We had to include a browser on the CDROM because the vast majority of our subscribers had no internet access. We publicized the journal mainly by manning a table at VR conferences, where we gave away sample issues. A major problem was the lack of standards in digital multimedia, and I got actively involved in the IEEE standards-making process.

IV. LATER ISSUES

As time passed, other VR journals and magazines disappeared because of higher publishing costs and declining numbers of subscribers. The IJVR stayed in business by constantly incorporating new technologies to keep our publishing costs down while producing a better product. The most important technological development was the .pdf file format, which we not only used for the CDROM, but used to intersperse printed pages created from different applications (e.g. pages with complicated insets used MS Publisher and pages with extensive equations used MS Word). As my university upgraded to on-demand printing (i.e. machines that create the complete printed issues in an exact specified number at the touch of a button), we also began to incorporate that. We never had to increase our subscription price.

The development of the email with attachments also allowed us to simplify our operation greatly by total communications with our authors and reviewers via the internet. We continued to have problems keeping our review process timely, however. Initially it sometimes took a year to get a paper properly reviewed, and even after we formally called for a 90-day time limit on the process we rarely got a review done in that length of time.

V. THE TRANSFER

In the year 1999 I decided to prepare to retire and began to make arrangements for the transfer of the journal. Fred Henderson had left as managing editor, and I had been unsuccessful in hiring a suitable replacement, causing me to do a lot more of the managing editor's job than I cared to. Moreover, at the same time I was serving as president of the faculty and co-chair of the university wide budget committee that dealt with a \$1400 million annual budget. My workload was overwhelming, and I felt the quality of the IJVR was suffering as a result.

I let out the word that the journal was available for transfer, terms to be negotiated, and a Korean group came forward.

After significant negotiations and a trip to Korea to finalize the arrangements, the Koreans were unable to carry through with the arrangements, ostensibly because of the failure to get the grant they anticipated. By that time some of the 16 remaining papers (enough for 4 issues) had been on hold more than 2 years, so I did not want to wait any longer. I published all 16 papers in a single edition by putting only the abstracts in the paper copy. The CDROM contained .pdf files of the complete papers in printable format. That was distributed in 2003, despite the fact that it was labeled 2001 for continuity at the advice of our library consultant. I fully expected the IJVR would be closed down at that time, and, in fact, had "Last IPI Press Edition" prominently displayed on the front cover.

Shortly after, however, Prof. Zhigeng Pan of Zhejiang University, who had previously served as a guest editor for two issues of the IJVR focusing on VR in China, contacted me with a proposal that the journal be transferred to a Chinese group. Prof. Zhigeng Pan is an active VR expert, who is the chairman of the VR Committee of China Society on Image and Graphics. He is the co-founder of VRCAI (VRAI) conference, and the founder of Edutainment conference.

Unlike the Koreans, however, the Chinese group wanted IPI Press to remain as official publisher and deal with subscriptions. They even wanted the journal to continue to be printed and distributed from the USA, but I convinced them the cost would be prohibitive for the ambitious plans they had.

After many months of working out the details, whereby IPI Press would totally give up all responsibility for the contents of the IJVR and just serve as official contact agency for subscriptions and other official business, a contract was signed. I was invited to visit China in August 2006, and in addition to speaking at a Chinese national conference on multimedia, I met with the new leadership. It was a very pleasant and worthwhile trip, and I returned with a sense of confidence that the journal would be even better than before.

Because of the much lower costs of publication, printing in the orient will allow the Chinese to have many more pages per issue than IPI Press was able to provide, plus it will have color in the paper edition, something IPI Press could never afford to do. The IJVR office will have Dr. Xiaogang Jin as the managing editor, someone who I believe is clearly up to the job, while Prof. Zhigeng Pan will serve as the new editor-in-chief. Others I met should also do a good job, and outstanding researchers have been recruited to publish their research in the new IJVR. As time goes on, we all anticipate that IPI Press will phase out, leaving the total operation in China.

It looks like an excellent beginning of a new era of publishing the IJVR. I found the work I did in creating and running it for the first few years to be very gratifying. I now look forward to seeing the many future innovations that Zhigeng Pan and his colleagues plan to introduce.