This is the opening of an article
that appeared in volume 1 of

NLP world

Original issues (paper copies) are still available.

Digital copies (pdf files) of separate issues (but not individual articles) are also available.

For further information, including prices, go to
http://theletterworthpress.com/nlpworld/backcops.htm

Mel Slater and Martin Usoh

NLP and Virtual Reality

Introduction: Virtual Reality

Virtual reality (VR) is a new approach to human–computer interaction that has developed since the mid-1980s. In VR a human being is "immersed" into a world created by computer displays. The person wears a helmet called a head-mounted display (HMD). This contains an optical system and two small internal screens, one for each eye. The person who wears such a HMD sees the right-hand screen with the right eye and the left-hand screen with the left eye. The outside world is blocked out. The brain synthesizes the two images into a single stereoscopic image. The HMD is connected to a computer, which transmits 3D scenes from its program and data to the screens. This must occur very fast, ideally more than 24 image frames per second, so that animations in the scene, or changes in view caused by movements of the person's head, will appear to be smooth.

The HMD also contains an electromagnetic sensor, which tracks the movements of the wearer's head, and feeds this information back to the computer. Hence the computer is able to update the images relayed to the screens according to the movements of the person's head. For example, when the wearer turns his/her head to the right, the scene will swivel leftwards, as happens with vision in everyday reality. This gives the impression of being visually immersed in the world generated by the computer. Moreover, many of the attributes of normal vision, such as movement and motion parallax, are replicated. Suppose there are two objects in a room, a chair and a tv. The chair is nearer to the observer than the tv and, relative to the person, the chair and tv are lined up. Let's say that the chair is half way across the room and the tv all the way across.

When the observer looks at the tv and moves his/her head from side to side, the chair appears to alternate to one side and then the other of the tv. Another example occurs when an observer on a fast moving train is looking at a distant object: this will appear to be relatively stationary, in comparison with nearby objects which move in the opposite direction to the train. The nearer the objects, the faster they will move.