

# 'Touching the void' ... narrowing the crevasse between the tactile diagrams that tutors request and those that work in reality

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## ABSTRACT

The author's previous role within the Further Education sector, at North Warwickshire and Hinckley College, was to teach Information Technology (IT) to diverse groups of students who had varied abilities. This role was drawn upon in the author's current role when asked to tutor a student who had enrolled for a Degree in Business and IT at Coventry University.

The author was asked to tutor the student for the IT workshops of a year-long module. This included translating the instructional handouts from mouse-based to keyboard-based, being aware of potential problems with specialist software and the quirks of the online learning system (WebCT) and finding ways of working around them all. There were also occasions where it was necessary to create tactile diagrams [1] for the student. One of the diagrams produced was for critical path analysis. It was created to allow interactivity and to reflect a piece of specialist software that was used for helping students learn the topic. The materials used included using Euro cents, Wikki sticks [3] and string!

A technician had been assigned to produce tactile diagrams for other modules. The technician realised that there were problems with some of the requests for tactile diagrams that were being received from some tutors. From discussions, it was clear that tutors were unaware of the issues involved with creating and using tactile diagrams. A void existed between their understanding from a visual context and how a tactile diagram worked. For many instances, creating a tactile diagram would not be appropriate as the complexity would be multiplied. A set of simple guidelines were produced that the technician could use as an aid to explaining issues to the tutors – 'touching the void' [5].

The tactile diagrams produced were using heated "swell paper" [2]. This meant that the diagram could be printed from an image on a computer. The resulting printout would be raised where lines were. However, it was discovered that this method gave some disappointing results. As there were no standards for tactile

diagrams but some conventions and guidelines [4], a strategy was produced, from the experiences gained, to give optimum results when translating a diagram from the computer to the "swell paper".

This poster displays examples of tactile diagrams, guidelines given to tutors for requesting tactile diagrams and strategies for creating printable tactile diagrams.

## Categories and Subject Descriptors

K.4 [Computers and Society]: Social Issues – *Assistive technologies for persons with disabilities*

## General Terms

Human Factors.

## Keywords

Tactile diagrams, tactile graphics University student, disabilities, Braille, e-learning, Information Technology

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