

#### **Cognitive Systems Design**

#### **Update September 2013**

## Joker One: A Tutorial in Cognitive Work Analysis



In my previous newsletter, I announced my new book, Joker One: A Tutorial in Cognitive Work Analysis, which is available on my website.

As many of you will already know, the framework of cognitive work analysis is based in the work of Jens Rasmussen. His books are rich in conceptualisation but lack structure. Kim Vicente, in his book titled Cognitive Work Analysis, performed a major service in providing a structured framework. In addition, he established a potent argument for why we would want to embark on such an extensive analytic endeavour. However, despite the structured approach offered by Vicente, the actual execution of the analysis remained a challenge.

My book is most specifically a tutorial in how to do the analysis. I proceed systematically through the framework of cognitive work analysis to demonstrate how to develop each of the representational products and how to use them for design. I work through an example to illustrate each of the analytic stages and to illustrate how the different analyses flow into each other. I also illustrate the implications of each stage for design of a cognitive support system; what is often referred to as an ecological interface (although, for reasons I outline in the book, I prefer the term, functional workspace).

For source material, I draw primarily on a narrative of US Marine counter-insurgency operations provided by Donovan Campbell in his book, Joker One. Campbell's book provides an account of his experiences in Ramadi, Iraq in 2004, where his platoon battled insurgents for seven months.

# **Access database for Cognitive Work Analysis**



I have recently explored the use of Microsoft Access as a modelling tool for cognitive work analysis. I became interested in Access as a modelling tool because it is, unlike Excel, a relational database. It can be used to model the relationships within and between the multiple stages of cognitive work analysis.

I have developed an illustration of how I use Access to model the output of cognitive work analysis. It is available on my website together with a brief note that describes how I built the Access model.

The source data for this illustration are drawn from my recent book, Joker One: a tutorial on cognitive work analysis. To download the Access model, follow the link to the book and look in the left hand column.

### Display & Interface Design by Kevin Bennett & John Flach



The full title is Display and Interface Design: Subtle Science, Exact Art

I have reviewed this for Ergonomics in Design and have a brief comment on Amazon.com. Email me if you would like a copy of the full review.

I will not repeat what I have said in that review except to encourage you to read this book. It offers an excellent treatment of interface design but additionally, it has the potential to transform the way we think about linking cognitive science to design.

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