Most Influential HF/E Concept

Christopher Nemeth –thank you, next, the most influential concept, we have comments from David as well as from Dick Pew. So, Dick if you'd like to offer yours please
Dick Pew – I, mine will be very brief, I think that the notion of task analysis and the follow-on things that have followed that, which I would include operational sequence diagrams, cognitive task analysis, work centered design and today we're talking a lot about even ethnographic exploration. I think that,…that nexus of developments is probably the most influential concepts.
Christopher Nemeth – Thank you. Ah, David Woods has this to share, ah, first of all, what everyone should know by heart, take out your pens, to do human factors well, one needs to know how to avoid oversimplification biases, or a reductive tendency. See Feltovich and Spiro 1997. If you don't know them by heart, you are committing them. Most people in human factors deal, that human factors deals with are trapped in them, unfortunately so is too much work in human factors also. And, ah, let's see Peter also mentioned information theory as most influential concept in Shannon's work. Influential concepts that have guided your career so far in human factors, anybody in the audience?
Audience Member - okay, I'll do one and I'll direct it to Emilie
Christopher Nemeth – and please just make sure name and organization so everybody knows
Audience Member - um, I'm Anne Bisantz from the University at Buffalo and I think that one of the things that I learned early on and that I try to emphasis when I teach is that to understand the work that people do you have to understand the complexity of the world that they're doing it in and you need both pieces of that and, um, I still because we don't get a text book, make them read the original paper were Emilie and David Woods contrasted those two types of (inaud)
Christopher Nemeth – and what work was that? Between Woods and Roth?
Audience Member It's in a, it's in the *Le Travail Humain* right?
Emilie Roth – yes
Audience Member - European journal and it's even hard to get copies of anymore and mine's falling apart, so,
Christopher Nemeth – maybe Emilie might make it available on her website… so that other people could also benefit from it. Okay, thank you for that. Yes
Audience Member - Jim S, University of Central Florida, I would say the importance of purpose in design and the importance of ethics in design, the design's ethical decision as much as the technical one and if you want to see essay's on that here Hancock has a book called 'Essays on the Future of Human-Machine Systems" which I think should be coming out as a new edition
Christopher Nemeth – thank you, anyone else? Yes…
Audience Member - Caroline University of Minnesota
Christopher Nemeth – a little bit louder please
Audience Member - Caroline P, the University of Minnesota
Christopher Nemeth – thank you Caroline
Audience Member - I think one of the most important things that I've learned is that in dealing (inaud) technology it's usually the human issues that are more difficult to solve. The technology is an enabler, but it is the human challenges that I find (inaud)

Peter Hancock - The most influential concept which is my next area, um, has to be information theory. Um the nice little book by Shannon and Weaver in 1949 which is published by the University of Illinois, Urbana Champaign, Illinois Press in which Weaver the technical scientist works together with, sorry, where Shannon the technical scientist works together with Weaver the ah, science writer, makes it a very readable book. And what it really did, it actually expanded on the work of Hartley and Lyquist which was the technical scientific work and it put it into the realm I think we were lucky there were appropriate metaphors, but the fundamental thing that it gave us was the common language. We would not be anything like engineering psychology without that and so I applaud that, I think um, I think I would be, if I were, if I were forced to make one single vote I would say that book is the most influential book of the twentieth century. Um, I was asked for the best conceptual work and I've put down Gibson, that's a very person choice. I think Gibson taught us about situating theory. I think Gibson began to take psychology out of the lab and put it in the real world where we're mostly interested in it. But I think more Gibson gave us the challenge and said, what do you, what use is a theory that can only predict a, a very restricted window of behavior as you're looking down a tachistocope, um it's not very helpful. I mean, psychology is, is part of the idea of changing the world and so Gibson must be given, given great, um, ah, recognition for that. I think you still struggle with the quantified nature of Gibson's approach and I'm sure those people who are more interested in numbers can feel frustrated about that, but, um, I still, I still salute that person. Now the best empirical work I don't think one can do, I think um, there are too many apples and oranges and there's too many dimensions to say this is the one best piece of empirical work so I'll give you two that are favorites, I will explain why they're my favorites. The first one is the work of a chap that you will recognize the second name, perhaps not the first is Nichol Treisman in 1963 he published a monograph which is a tour de force about how to go about the logic of science

Christopher Nemeth – can you spell that

Peter Hancock - T-r-e-i-s-m-a-n, Nichol Treisman, he was married to Anne Treisman of Treisman and Gelade feature extraction theories as you know. It was probably his dissertation work, I wouldn't bet on that one hundred percent, but it was absolutely wonderful in terms of this is how you rationally, go about putting together a model. This is what the model means, this is how you test the model, this is where you then make advances. It is a um, it is a road map for any student wishing to know how to go forward. I strongly recommend reading that. Ah, and then I must then bring it up to date more, with a more personal one which is ah, I very much appreciate the work of our colleague who's not here today, um, but has been at this conference Joel Warm. He is what I call old school, okay. He worries out a problem til it says uncle, okay. He has been wrestling with that vigilance; he has worked in the algean stables of that area, when no one else very much was there. And he continues to do that over decades and decades of application. That is praise worthy in itself almost even if you don't make the great empirical breakthroughs, but for me he is a role model and a mentor and somebody I look to when I say this is how one goes about consistently attacking nature to understand it and again he won't let go, he will keep fighting and he does believe in empirical method.