Big Questions In Computation

Samson Abramsky

Oxford University Department of Computer Science

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- Big
- Well-defined, and able to be addressed

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I will suggest two, based on the following notions:

- Processes
- Contexts

Computation: how it was



Computing in the isolation ward

The changing face of computation





The changing face of computation



Dier Company

Dark Completer





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No established mathematical theory of what processes are.

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It's a much harder problem! Will need a new Turing

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(X_1, Y_1)	1			
(X_1, Y_2)	0	1		
(X_2, Y_1)	0		1	
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If 'common sense' holds, there is a unique assignment that the outcome (R, R) for measurements (X_1, Y_1) could come from:

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However, this would require the possibility of outcomes (G, G) for measurements (X_2, Y_2) , and this is precluded!

A world of processes and contexts

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Taking contextuality as primary.

Can we rethink our conception of the world in these terms?