

GC7 Group Discussion, Newcastle, BCS Grand Challenge Workshop 2004

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Not happy with title of this GC; if successful we see the outcome as an expansion and enrichment of the notion of 'computation', i.e. the classical will then encompass a variety of alternative computing paradigms.

Discussion of 'what is computing' led quickly to idea that *a priori* definition was not a good idea and hence to goal of collecting a set of paradigms, such as those described in GC7 papers.

Once a set begins to emerge:

1. Develop a **scientific characterization** --- common laws? universal variants? relationships?
2. **Exploitation** of abstract characterization in practice --- effectiveness and applicability; cost and efficiency; complexities (both computational and of system design); embodiments and interfaces; appropriate evolvability.