Candidate Interest #2

A Distributed Cognition Framework for CS1

A broad range of approaches have been used to teach CS1 courses to college students over the past several decades. Each has its passionate advocates. Yet little attention has been brought to bear on the possibility of conceiving of CS1 in terms of a distributed cognition framework.

Since computer programming has evolved to the point where it is essentially an act of distributed cognition, it may be desirable to explicitly embrace that fact when crafting CS1 courses. Framing CS1 within the lens of distributed cognition need not be viewed as precluding the opportunity to adopt a particular favored flavor of the course. Rather, adopting a distributed cognition framework might profitably be viewed as an opportunity to reinterpret a favored flavor in a more authentic learning environment. What are the benefits of adopting the distributed cognition approach to CS1? What are the detriments? What might a CS1 course grounded in distributed cognition look like?