An Empirical Study of Delegation vs. Inheritance

Luke Inkster

Supervisors: Dr. Alex Potanin, Prof. James Noble & Tim Jones

The Problem

Inheritance vs. Delegation

Would delegation be useful in programming languages developed at Victoria (Wyvern, Whiley, Grace)?

How are delegation and inheritance patterns used in existing languages?

The Proposed Solution	Parsing the Qualitas Corpus:
	1. Automated search for inheritance - JTL
	2. Automated search for delegation - JTL
	3. Manually inspect results from Step 2 to find uses of delegation
	Investigate how examples of inheritance could be reimplemented with delegation.

The Success Measures	Project is a success if I'm able to parse valuable data about use of delegation and inheritance from the Corpus.
	True vs false positive and negative readings of the algorithm.

Risks, Budget & Ethics

What if I don't find data favoring either method?

No user testing.

No ethical risks, can be run in isolation.

The Timeline

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Research	■	■						
Learning Tools		■	■					
Developing Automation			■	■	■			
Automated Checking				■	■			
Manual Checking					■	■		
Preliminary Report			■	■	■			
Draft Final Report						■	■	
Final Report								■

Thanks

Luke Inkster - 300288723
luke.inkster@ecs.vuw.ac.nz