Crowdsourcing From First Principles

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1 Motivations:

» Evidence of a lack engagement from the Information Systems (IS) community with the Crowdsourcing (CS) domain

» Confusion exists as to the definition of CS and the delineation of CS process components

» Critical flaws exist in existing CS frameworks (FW) & taxonomies, which show the following deficiencies in their construction;

> › Lack of theoretical glue
> › Lack of cumulative tradition
> › Lack of parsimony
> › Lack of clarity

» No taxonomy of CS metrics is available through which CS practices can be compared and measured

» CS research to date is largely industry driven and there is a clear requirement for further theory based academic research in the domain
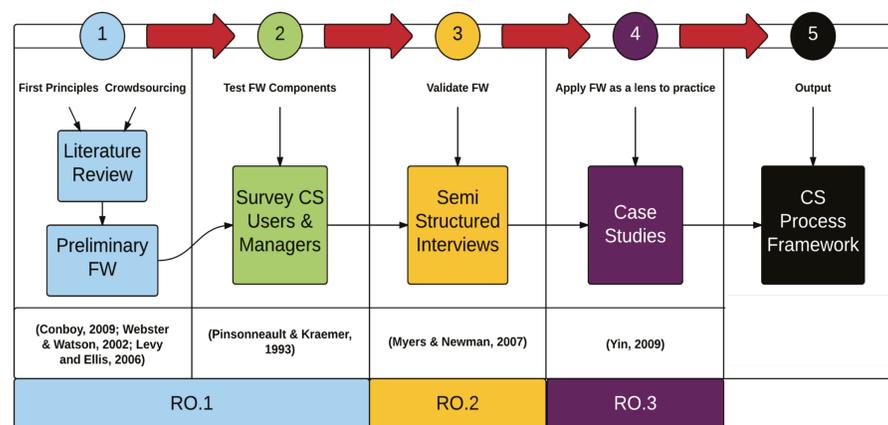
Research Objectives

RO.1 Develop a crowdsourcing process framework from first principles for developing, selecting and evaluating crowdsourcing practices

RO.2 Validate the framework in practice

RO.3 Apply the framework as a lens to critically appraise contemporary crowdsourcing practice
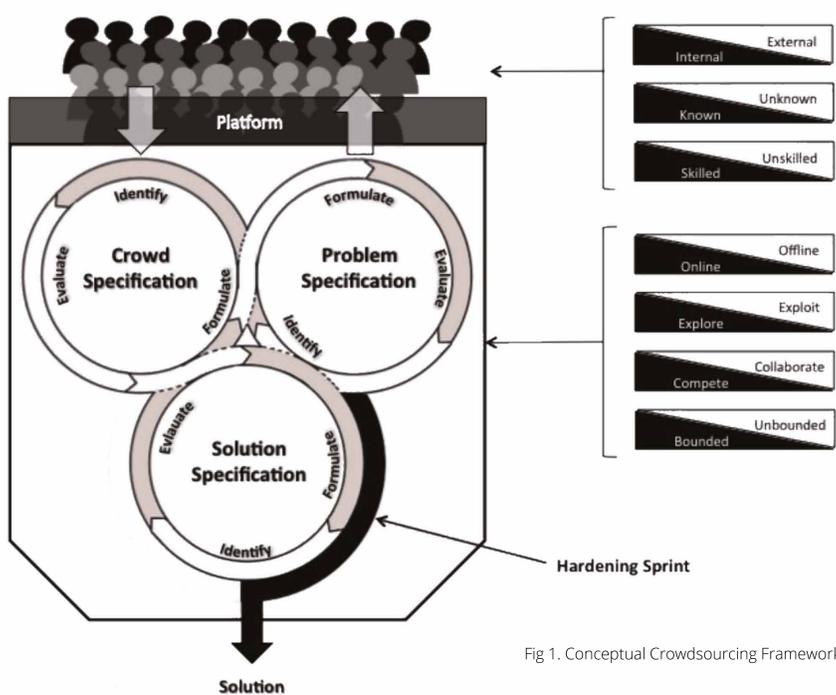
2 Methods:

The research adopts a qualitative, interpretivist approach in advancing a conceptual framework for developing, selecting and evaluating CS processes;

	1	2	3	4	5
	First Principles Crowdsourcing	Test FW Components	Validate FW	Apply FW as a lens to practice	Output
	Literature Review	Survey CS Users & Managers	Semi Structured Interviews	Case Studies	CS Process Framework
	Preliminary FW				
	(Conboy, 2009; Webster & Watson, 2002; Levy and Ellis, 2006)	(Pinsonneault & Kraemer, 1993)	(Myers & Newman, 2007)	(Yin, 2009)	
	RO.1		RO.2	RO.3	

Impact

» Advances a conceptual overarching framework derived from first principles

» Research seeks to influence national funding policy (IRC and SFI)

» Aim (Intermediate): Deployment of pilot process application at SFI

» Goal (Long term): The application of the framework to European projects such as Horizon 2020

3 Framework:

Fig 1. Conceptual Crowdsourcing Framework

» Cyclical core processes can be completed sequentially/parallel

» Terminated with a hardening sprint.

» Process features varying levels of exploration/exploitation, collaboration/competition and bounding/unbounding.

4 Publications and Next Stages:

Select Publications

1. E Cullina, K Conboy, L Morgan (2015) Measuring the Crowd – A Preliminary Taxonomy of Crowdsourcing Metrics, Proceedings of The International Symposium on Open Collaboration, OpenSym.

2. E Cullina, K Conboy, L Morgan (2014) Crowdsourcing and Crowdfunding Mechanisms for Scientific Research Funding Agencies–A Preliminary Entity Categorisation Matrix (PECM), Internet, Politics, and Policy (IPP) - Crowdsourcing for Politics and Policy.

3. E Cullina, L Morgan, K Conboy (2014) The Development of a Public/Private Model for the Crowd-funding and Crowdsourcing of Scientific Research Projects, The 3rd international SIG Prag Workshop on IT Artefact Design.

Next Stages

The next stage of the research will involve the completion of a survey of the managers and users of CS. Then semi-structured interviews of individuals and institutions engaging the crowd will be completed. Lastly, two case studies will be completed in an effort to show breath and depth in the framework advanced.

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