CoCoNet

A Collaborative Network for Computing Dissertation Projects

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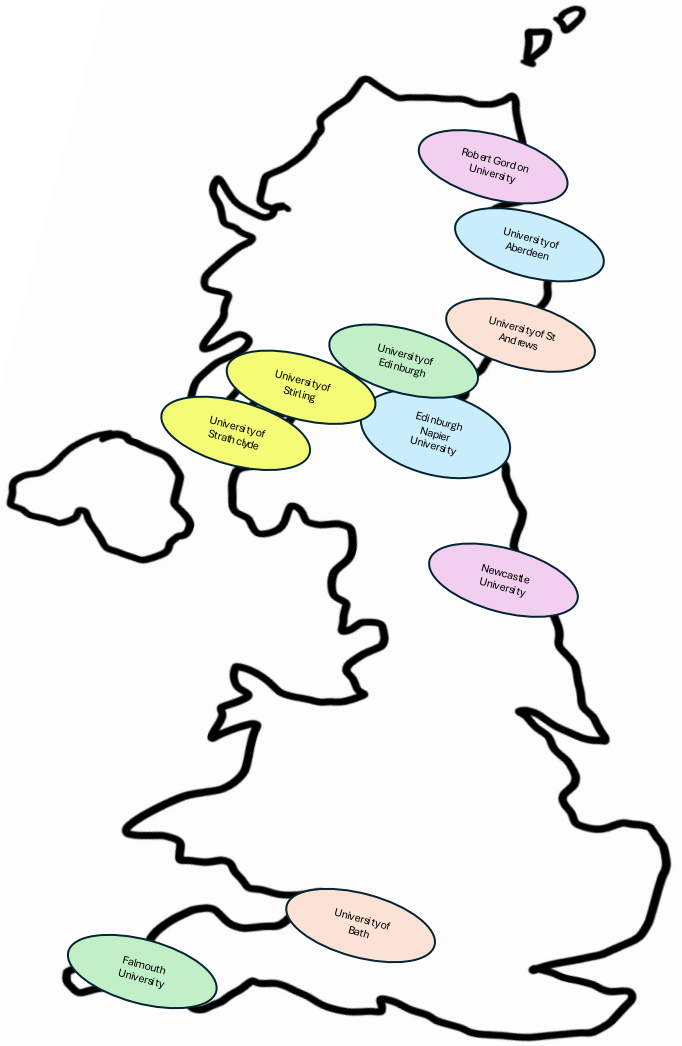
Gathering and sharing practice in Computing dissertation projects

How do we …

.. Allocate Topics, Supervisors
.. Set fair expectations of supervision
.. Assess fairly, efficiently, authentically
.. Promote appropriate, ethical use of Gen AI



RGU ABERDEEN · Newcastle University · University of Aberdeen · University of Bath · Edinburgh Napier University · University of Stirling · The University of Edinburgh · University of Strathclyde Glasgow · University of St Andrews · Falmouth University

Context:
Capstone on a shifting education foundation

Individual project modules sit on top of a rapidly changing context:

- Growing cohort sizes
- Shifting student preparedness and expectations
- Wide range of specialist computing topics
- Generative AI prevalence

All challenge our existing models of supervision, assessment, and academic integrity.

Why an individual project?

- A vehicle for students to show their ability to synthesise knowledge across a programme of study
- Meet requirements of Professional Standards Bodies
- Enable students to engage with complex, ill-structured problems [1]
- Provide hands-on experience of core topics while fostering professional competencies [2]

[1] Sally Fincher, Marian Petre, and Martyn Clark (Eds.). 2001. Computer Science Project Work: Principles and Pragmatics. Springer. doi:10.1007/978-1-4471-3700-9

[2] Amruth N. Kumar and Rajendra K. Raj. 2024. Computer Science Curricula 2023 (CS2023): The Final Report. In Proceedings of the 55th ACM Technical Symposium on Computer Science Education V. 2 (Portland, OR, USA) (SIGCSE 2024). Association for Computing Machinery, New York, NY, USA, 1867–1868. doi:10.1145/3626253.3633405

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Our aim:

- Build a network of practitioners in “dissertation projects”
- Bring them together to share practice, challenges, solutions
- Identify commonalities, future directions

Goal: “to identify where innovations to practice are desirable, as well as sharing, borrowing and adapting successful practice both within the Computing discipline and elsewhere”

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What we did: CPHC Special Project

12 month project 2025-26:

- Recruited participants (via UK ACM SIGCSE, SICSA) Jan-Feb 2025
  - 15 participants, 10 institutions
- Launch meeting Newcastle, April 2025
- Share practice through meetings between paired institutions, June – September 2025
- Review meeting online, October 2025
- Final open workshop, Edinburgh, Feb 2026

“What do you want to learn about?”

How to …

- assess professional conduct
- maintain engagement/motivation
- deal with Gen AI
- equitably assess “non-documentary” project work
- deal with diverse project application areas

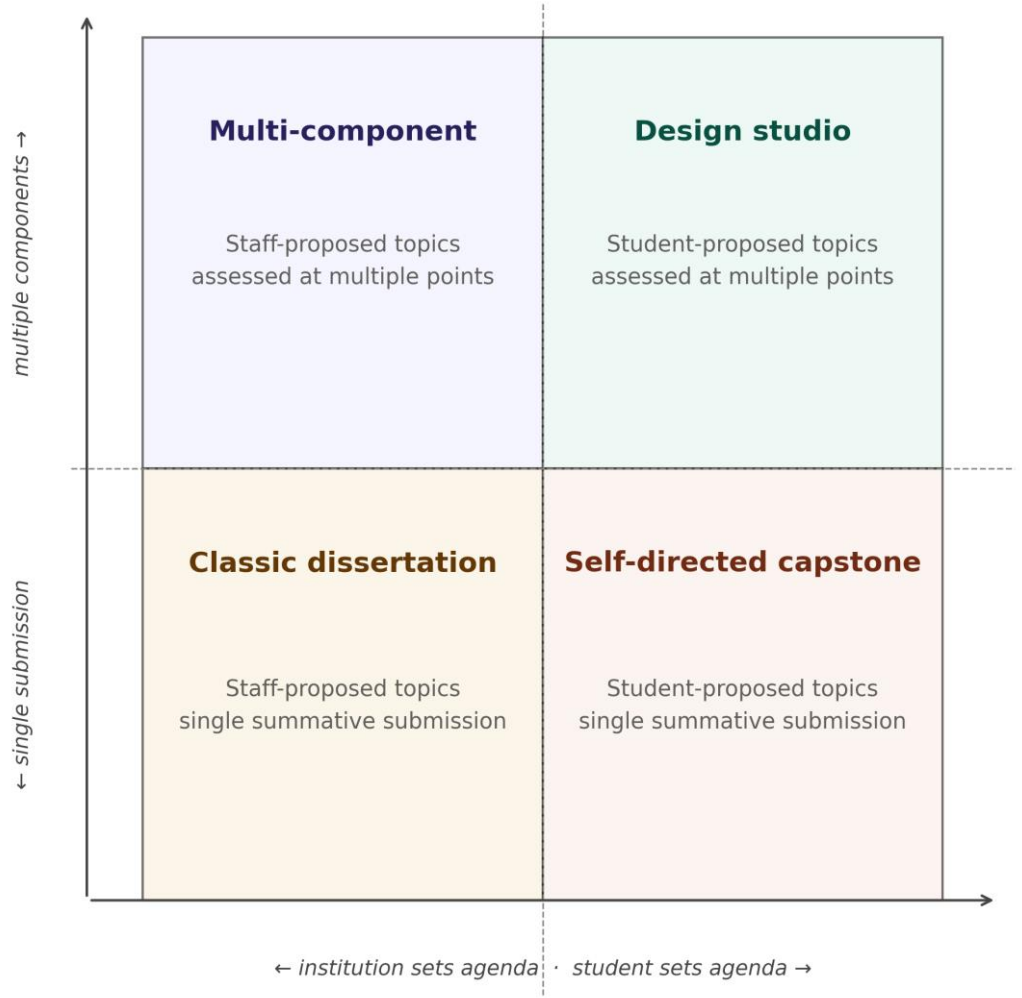
Initial comparisons

Institution	UK Credits	Assessment	Report	Supervision
A	30 (two sem)	Final report, demo and artefacts	*no* word targets (15k for PGT)	Weekly
B	4 x a standard unit (1.5 sem)	Demo of progress (Feb, 10%) + Report (May, 90%)	10k words	Varies by supervisor
C	40 (two sem)	Report, Proposal + Ethics	12 pages (2 column)	Fortnightly groups (3-4)
D	40 (two sem)	Dissertation	20-40 pages	Weekly by default, up to supervisors
E	40 or 60 credits	Poster, Report, Viva (40 min)	12k words	Weekly
F	45 (one sem)	Demo, Q&A (30 min), Report, Poster	50 page max	Weekly (up to supervisors whether ind/group)
G	60 (one sem)	Proposal/background sources/ethics, mid-point check-in, poster, report	15k words	Varies, up to supervisors whether ind/group
H	60 (one sem)	Report, Degree Show	8k words	Weekly
I	60 (two sem)	Objectives/lit review (10%), dissertation (90%), demo (p/f)	15k words (+/- 20%)	Weekly
J	60 credits (one sem)	Report, Video demo	8K-10K words	Weekly / Fortnightly groups, up to supervisors

Outcomes of paired discussions

- **Commonalities**: a final report; software artefact; similar allocation models; topics proposed by students or supervisors; supervision individually or in groups; double-marking of report with a means of tracking and resolving disagreements
- **Variations**: level of “research methods” training; quantity of formative/summative deliverables; AI guidance; interventions to maintain engagement
- **Challenges**: consistency of challenge across different project types; consistency of assessment between markers; workload imbalance; academic integrity; ethics approval processes

A classification framework



What's Next

Just getting started …

- Building the network
- Surveying student & industry perspectives
- Building shared resource repository
- Further events and workshops

- Interested? Complete the form here: **bit.ly/3OeED0c**