

IAT 884 Prototype Proposal [Template]

GOAL: Situate and describe a tangible prototype as a research instrument to address a specific research question in tangible computing.

First Draft Due: See course schedule for due date. Email to aantle@sfu.ca and bring to class week they are due.

1. Title [something snappy or informative including people, activity, technology and/or research approach or contribution]

2. Problem All research starts with a problem – some knowledge is unknown. What problem is motivating your research? [1-2 paragraphs, include at least 2-3 references]

3. Domain (art&design; comp/eng; HCI; interaction design; social science) Position how you will approach your research problem in one or more domains relevant to tangible computing. [1-2 paragraphs]

4. What drives design? Is your design research driven by a conceptual exploration (design); a theoretical investigation (HCI); a response to a social issue (art&design); a problem in an application domain (design or social science); a problem in user interaction or interface design (design or HCI) or need to improve an enabling technology (HCI)? In addition, situate your problem and project at the appropriate level using the triangle model from the handout. Explain your choice of level. [1-2 paragraphs]

5. Specific Question What is the single research question you are asking? [1 sentence plus definitions or details as required]

6. Nature of prototype What are the key characteristics required for your prototype to succeed as a research instrument which can be used to address your specific research question at the appropriate level and in the specific domain? Consider: function, aesthetic, form, operability etc [2-3 paragraphs; relate your answer to your answers to points 2-5 above]

7. Validation approach How will you ensure rigor in the development of your research prototype? How could you validate any knowledge claims you make? That is, how will you know your research prototype does what it is supposed to, serves the role you envision for it or can be used in the way envisioned? [2-4 paragraphs]

Possible approaches to validation: system tests, functional tests, usability evaluation, user experience evaluation, analysis using some criteria or framework, expert review, empirical experiment, informal public assessment, expert critique etc. [for which ever you choose you must think about rigor of your research].

Note that you will NOT be required to implement whatever validation approach you suggest (unless you want to), but you do need to have thought it through and write about it in your accompanying paper in detail.

NOTES: Please include proper titling information (course, instructor, name, date, term, project title), headings (1-7 as above), headers and/or footers with page numbers and revision number. Include sketches or diagrams if helpful. Use the

reference format for your target paper submission venue. Please add a footnote specifying reference format and venue to References heading ... like this

Referencesⁱ

ⁱ References are formatted using ACM style as suitable for the ACM TEI 2015 conference.