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Prolegomena to Information Technology: Higher Degree Capstone Units

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This paper is not about Information Technology (IT) *per* se, but *per accidens* in the special features of the teaching of IT higher degree "capstone" units and the supervision of doctoral candidates. Usually, the students are very intelligent and very well prepared in their *Bachelor* degrees, but IT is developing at such a pace that probably no graduate curriculum anywhere is ever completely up-to-date at any instant in time. This paper outlines one approach to the problem through a series of ten "prolegomena", each one of which consists of a central issue and eight related IT topics. The aim of each prolegomenon is not to teach and learn a new topic so much as to sensitise the students to those IT topics which are not covered in their coursework at a particular university. This is an attempt to avoid the not uncommon phenomenon of university graduates who do not know what they do not know! The process is also a limited introduction to managing continuing professional development during their future working careers. The students in these capstone units are placed in groups of four where they learn the essentials of teamwork, since they will be working in teams when they graduate. The capstone unit focuses on an industry-level project which can be elaborated in a minor thesis over two semesters. The projects come from industry colleagues in the USA and Europe. Naturally the prolegomena here are institution-related since they are trying to touch on the gaps within the syllabus of a particular institution. Interested readers will have to modify them to fit the context in their own institutional environment. Other features of capstone units include assisting the students to acquire those general employability skills related to their institution's graduate attributes; these are to help them in handling interviews both for their initial employment and later promotion opportunities.