Using EPrints to Understand Research

The department of Electronics and Computer Science (ECS) at the University of Southampton has about two hundred research staff. Often staff members will have overlapping research areas without knowing. It is useful to discover what the people around you working on and to identify those with similar research intrests so that ideas can be shared. Electronics and computer science are fields which evolve rapidly, therefore a researcher's interests change or drift. This means that a researcher' list of interests 6 months ago may be quite different to their research interests now. Rather than encouraging researchers to constantly update their own interests, this information could be derived automatically to determine interests based on their reading material.

A large part of producing research papers is reading other peoples research. Papers which are directly relevant to the research output will be cited but this does not cover the distantly relevant or even what was read and discarded as unhelpful. Undoubtedly this information shapes the landscape in which research directions are decided. The system reading.ecs.soton.ac.uk is an EPrints installation which is customised to collect items people are reading not just what they are citing. Users can easily add items that they have read or would like to read from the web. The simplicity of this process means that a large corpus of papers read can quickly be constructed. By analyzing the tags associated with papers a person's interests can be determined automatically; providing researchers with an easy way to manage their research. The resulting interests allow an individual to improve their visibility in the community of researchers in the department. A researchers work can also be enriched by recommending associated papers or other researchers in a similar area. A comment and noting system is also provided which allows researchers to discuss papers they have read or keep a personal summary of their material.

Users can also make collections of papers. These collections can be used for many purposes. Example cases might include: papers read for a project, a reading list to give students or the citations to be used in current research. Collections (and items) can be exported in a variety of formats including Bibtex, EndNote and RSS which make collections a useful way to manage citations cf. CiteULike.

Understanding who works in your area increases coupling between researchers within the department and could lead to better research. However the real advantage for a department comes from having in depth statistics at their disposal. Accurate knowledge of a departments research interests could be used to inform purchasing of equipment, easy access to information for press releases and to discover future potential research areas. Knowing journals that researchers are reading might help to inform them about journals which might be appropriate to publish in. For example, if 5 people in the department are reading papers from a given journal, that journal maybe revealed to be a suitable place to publish departmental work. Indepth knowledge about current research can also be used to suggest funding strands which may be followed for future projects.

The reading.ecs.soton.ac.uk system provides the department of electronics and computer science with a means to collect difficult and usually intangible information about the research process. This information helps us to better understand our own research and guide our research strategies. EPrints is ideally placed to implement this system since it is flexible, extensible and built with the considerations of managing research papers in mind. Researchers can use the system to more carefully manage their research and establish better working relationships within the department. The department can use the information from the system to inform decisions regarding it's research agenda and take advantage of research trends. Although reading.ecs.soton.ac.uk is in its early adoption phase the initial community reaction has been positive.