The Dissonance Between Business and Product Development (Jay Compton, John Bottiglieri)

Abstract: Innovating new products within an existing business is hard. Many companies have applied different incubation models in an attempt to disrupt existing business patterns through product incubation. Within Healthagen, the application of Agile and Lean product development principles were chosen specifically to rapidly incubate new products. In this paper, we will walk through the incubation model to which we applied these development principles and what we have learned. This paper will also cover how we challenged that incubation model and evolved it through the assertion that product management, design and engineering should be coupled with the stakeholder, as well as the experiment and measurements currently being applied.

AGILEUXModel – Towards a Reference Model on Integrating UX in Developing Software using Agile Methodologies. (Angela Peres, Tiago Silva Da Silva, Fernando Selleri Silva, Felipe Furtado Soares, Carlos Rosenberg Maia de Carvalho, Silvio Lemos Meira)

Abstract: This paper sets out a maturity model for integrating agile methods and interaction design in the software development cycle that may be suitable for small companies. The proposal is in line with the CMMI, MPS.BR and ISO18529. The model focuses on the first levels of maturity where what is sought is to establish a standard process within an organization by defining agile practices, principles, techniques and artifacts of interaction design. It also offers guidelines on how to integrate practices that are important for maturity whether it is to evolve to more advanced levels. The model was verified by panels of experts. Future studies will be conducted so as to extend the model and do so by detailing other process levels and conducting case studies in companies with experience in the maturity of the integration process of interaction design in the software development cycle with CMMI and/or MPS.BR certifications.

What Do You Mean When You Discuss “Agile”? A Systematic Mapping of Agile Publications at ICSE and Agile (Sydney Pratte, Theodore D. Hellmann, Frank Maurer)

Abstract: Agile software engineering is now widely accepted in industry, but how far has adoption gone within the research community? In this paper, we present a systematic mapping study that compares the use of the term “Agile” at both the Agile Conference and the International Conference on Software Engineering, a highly-ranked general software engineering conference. Through this investigation, we found distinct differences between the two conferences. Most notably, Agile topics are discussed in only a very low percentage of publications at ICSE and that ICSE focuses on distinctly different aspects of Agile. Concerns about this are discussed, and recommendations for how to advance the state of research at both conferences are discussed.
A Systematic Mapping on Agile UX Across Three Major Agile Conferences (Tiago Silva Da Silva, Milene Silveira, Fabio Silveira)

Abstract: Agile UX is an emergent and extremely important theme, but what does it exactly mean? We build on previous work to provide a systematic mapping of agile user experience (UX) publications at the three major agile conferences. The analysis presented in this paper allows us to answer primary research questions such as: what is agile UX used for; types of HCI techniques have been used to integrate agile and UX; what types of studies on agile UX have been published; what types of research methods have been used in agile UX studies; and what benefits do these publications offer? Furthermore, we explore topics such as: who are the major authors in this field; in which countries do these authors work; and is the field driven by academics, practitioners, or collaborations? This paper presents our analysis of these topics in order to better structure future work in the field of agile UX and to provide a better understanding of what this field actually entails.

Agile Methods Adoption on Software Development - a Pilot Review (Caio Silva, Alfredo Goldman)

Abstract: Scientific publications throughout the years describe study cases and experience reports from organizations that have been through the agile adoption process. At the same time, frameworks and generic methods for adoption have also been published intending to obtain some predictability on the steps of this transition. However, when disposing of either generic or specific inputs to help them on their way towards agility, companies do not know how or where to start their changes. This short paper describes the current investigation state of a systematic review that aims to understand better how organizations effectively adopt agile methods, trying to find a correlation between the characteristics of an organization and the way it effectively transitions to agile.

Technical debt management: Where to start from? Preliminary experiences from an action research study (Graziela Simone Tonin, Vinícius Suyama, Nara Sakamoto, Danilo Saita, Enderson Bazetti, Danilo Possarle, Viviane Santos, Alfredo Goldman)

Abstract: Technical debt (TD) involves poor design and implementation decisions that negatively impact code quality and maintenance. Despite our best intentions, TD is often a major concern in our systems. Because of that, this paper presents an action research study on technical debt from two agile teams of a software development company. These teams aimed at applying approaches to deal with TD identification, monitoring, and management. These three aspects were conducted in three action research cycles respectively for both teams. By getting more visibility about the problems on their code, the teams became more aware of the importance of this topic. Likewise, they started to build a responsibility sense for identifying, removing, and incorporating technical debts concerns in their software development processes. Although the results are still preliminary, these teams
understood the importance of dealing with technical debt, experienced a decrease in TD items and from now on expect that TD become manageable over time.

**Network Analysis for Software Patterns including Organizational Patterns in Portland Pattern Repository (Hironori Washizaki, Masashi Kadoya, Yoshiaki Fukazawa and Takeshi Kawamura)**

Abstract: Software pattern is a general reusable solution to a commonly occurring problem within a given context while software development and management. Among various software patterns, organizational patterns are known as the basis for Agile software development movement, especially for Scrum and Extreme Programming. Patterns usually form a network having relationships among them to support users understand and utilize patterns efficiently and effectively. However little is known about the nature of such pattern networks, such as how are organizational patterns different from other patterns from the viewpoint of centrality. To clarify such characteristics of pattern networks and organizational patterns, we mine a network consisting 285 patterns from an existing world-largest online pattern repository called Portland Pattern Repository (PPR). By applying network analysis techniques to the mined network and careful review of the result, we revealed several interesting characteristics of the pattern network and organizational patterns.