Research Challenge Problem Definition No. 4

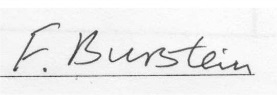
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| **Problem Title: (**One Sentence description of the challenge**)** |
| How can technology support information platform for personalised healthcare? |
| **Background:** (4-5 sentences providing a general description of the problem to be solved. Why is it important?) |
| Ubiquitous access to information and communication technology has potential to impact the way healthcare is delivered to the population of Australia. My Health Record is an integral part of the myGov.com.au eGovernment initiative which underpins …[A] simple and secure way to access government online services” (<https://my.gov.au/LoginServices/main/login?execution=e2s1>). Through implementation of such infrastructure a fully connected, integrated healthcare records can be created, managed and shared among various agencies and healthcare practitioners when it comes to provide services in a “patient- centred” way. The opportunities stemming implementation of nation-wide electronic health records is hard to underestimate. It ranges from saving time on hospital administrative data management, better communication between healthcare agencies, to a potential of using this data for a large-scale clinical and epidemiological research. So why does not Australia have a fully-functional electronic personal health record?  The establishment of the Australian Digital Health Agency (the Agency) in July 2016 provides a new mechanism to drive the personalised health agenda through “…focusing on connecting people and information from general practice, community pharmacy, diagnostic imaging, pathology and hospitals” [(https://www.digitalhealth.gov.au/about-the-agency]((https:/www.digitalhealth.gov.au/about-the-agency))  The technical solution for such an infrastructure has been proposed for Australian population for over a decade, however, it is still has not been fully implemented and widely adopted by either patients, or patients. Moreover, there are recent examples, when recording of medicare numbers on-line created privacy and security threats for large numbers of Australians (see <http://www.abc.net.au/news/2017-07-04/tudge-calls-for-afp-to-investigate-medicare-card-numbers-dark-w/8676678>).  There are a number of other socio-technical problems associated with this problem. |
| **Boundaries:** (Used to define constraints for the project. For example: Describe technical thresholds that maybe desirable; environmental conditions to consider; technologies that might be relevant; Other clarifying information.) |
| The teams may like to define which dimensions of the identified problem they can address considering the time and a skill-set available to the team;  A review of what are the World best practice in this field and the extent to which it can inform the proposed solution may be undertaken  It is not expected that the proposed solution will be totally innovative, instead there should be a full recognition to what are the existing or forthcoming development in Digital Health and Australian eGov agenda which the proposed solution can be driven from.  A critical evaluation of the proposed implementation architecture from the perspective of the cutting-age computing research would be a very valuable outcome of this challenge.  The group should also clearly spell out who will be the main beneficiary of their research. |

I understand and agree to the following:

* Teams will have two hours to develop a research proposal that addresses the research topic as defined in this *Research Challenge Problem Definition*.
* Each team will then deliver a three minute presentation on their proposal. If overhead slides are used, such slides must be in PowerPoint format. The presentations will be recorded.
* Each team will complete a *Research Challenge Proposal* at the completion of the competition.
* Prizes will be awarded to the student teams for the best proposals, as judged by an academic panel.

A copy of the Research Challenge Problem Definition, the presentation recording, any presentation slides, and the completed Research Challenge Proposal will be published in the Monash Figshare repository, licenced under Creative Commons Attribution-NonCommercial-NoDerivs licence (CC-BY-NC-ND), and with joint authorship comprising the team members and the proposing academic staff member.

**Proposing Academic Staff member:**

**Name:**  FRADA BURSTEIN   
**Signature:**     
**Date:** 04.07.2017