Personal Health Records for College Students: A Case Study

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Summary
The health situation of American college students is deteriorating. Traditional problems such as binge drinking, poor diet, and intense academic stress are rapidly being compounded by an increasing prevalence of metabolic risk factors, obesity, and mental health disorders. Allowed to continue on the current trajectory, college students will become a greater health burden by the age of 50 than their parents.

With a young population ill-prepared to deal with these issues, while experiencing its first true taste of independence, we have set out to understand if the use of personal health records (PHRs) can help stop or slow down, early on, this trajectory of potential health decline?

To help answer this, we are currently engaged in a year long investigation of PHR use by college students at the Indiana University-Bloomington campus.

Background
Recent trends in patient-centered care are intended to give individuals a more prominent role in managing their health. To allow people to manage their health, we must provide them with tools and technologies that enable and encourage informed decisions concerning their shortand long-term health. A solution is emerging in the form of Personal Health Records (PHRs), which help patients manage, maintain, and exchange their health information with support from medical practitioners becoming exploiters of their own care.

Methodology
This project is part of an ongoing collaboration between The School of Library and Information Science and the IU Health Center at Indiana University. A mix of methods have been used to guide our initial exploratory investigation:

Heuristic evaluation: Usability analysis of existing electronic PHR at IU.
Survey: A 30 question survey with likert responses sent to 1,556 students.
Focus group: Follow up focus groups held with subset of survey respondents.
Prototype design: Masters students were asked to take a user centered approach and redesign the PHR so that it met the needs of the IU Health Center and college-aged students.

Findings
Information Management
• Students are resistant towards the idea of self managing their health information. Instead preferring for information to automatically populate their record after or during their visit to a health care provider.
• Information should only be placed into the PHR if it is generated by a health care professional. There is a perception that only "valid" information should be placed into the record.
• There is confusion in regards to what kind of information can go into a PHR. Students separate medical information generated by a health care provider from self-generated health information (e.g. dietary habits) and assume that a PHR is primarily or only a repository for the former.

Context
• For a student to find a PHR relevant, it should not just be a static container of digital information.
• After a visit to a health care professional, students want to be able to review information that was collected or generated during a visit.
• Any educational or informative information that is provided by the PHR should take into account the individual’s health data that resides in the system.

Integration
• Frustration was expressed when requests were made by the PHR for information that was not seen as being relevant.
• Data entry into a PHR was considered as being a waste of time if the same information was requested again during a visit to a health care provider. To resolve this issue, a shift of perspective is needed from a "transactional" to an "interpersonal" view of health care. This requires ongoing exchange of information between PHRs and EMRs, but also active participation and adoption by both patients and providers.
• The electronic PHR at IU ties into an existing student academic and course management system (Onestart). This led to some confusion by students as they do not consider health information as being contained within or being part of a larger online academic management system.

Conclusion
Students do not want their PHR to be a self-managed repository of health information. They prefer that the PHR be populated automatically by data generated during a visit to a health care professional, as well as for data to flow from the PHR to the EHR.

The PHR needs to provide contextual information that is relevant to the individual’s health record. There is an abundance of health information available online, however this availability of information leaves unanswered the question of “is this relevant to my specific personal health needs?” A PHR could provide needed guidance in allowing an individual to answer this question.

We need innovative approaches to engage students in the self-management of their health. For this purpose, we are developing serious games that can ultimately link to PHRs, social networking mediums, and risk assessment tools.