

Excuse Me, Do you wish to achieve Sustainable Adoption in your Health Informatics initiatives?

Dr. Adam CHEE, 25th May 2016

A few days ago at a business lounge, I saw a fellow business traveler carrying 3 mobile phones, each a different make and model. Turns out, he maintains 3 mobile numbers, each from a different country because he needs to stay in regular contact with business associates in these countries.

The thing is, I too maintain 3 mobile numbers for similar purposes, each also from a different country (Singapore, China and USA) but I carry only 1 mobile phone with all three numbers active concurrently, all able to make, receive calls & SMS.

In all honesty, I cannot imagine how one would try to carry 3 mobile phones at the same time, trying to remember which ring-tone belongs to which phone (so one can retrieve the right phone to answer the call) or the need to carry 3 chargers and maybe 3 spare batteries / mobile power bank etc.

So what is my point exactly? Well, the above scenario illustrates what I call a **successful implementation** but a **non-sustainable adoption**.

Now what does this have anything to do with Health Informatics? Well, such implementations are very common in the world of Health Informatics, with millions of healthcare organizations proudly proclaiming successful implementations (which makes nice case studies and/or press releases) but in reality, they are suffering from non-sustainable adoptions, which often results in having to rely on 'workarounds' (methods for overcoming a problem or limitation in a program or system) and on-ground complains that Health IT (including technology, standards etc.) just isn't "there yet" (it really is a lose-lose situation).

But as one can see from the "3 mobile numbers" example above, the problem is not with the technology nor the industry standards, it is how the technology and standards are used. This brings me to the topic of Workflow and I invite you to read this article written back in May 2013 to illustrate what exactly is **Workflow**.

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The topic of Workflow has always been one of my favorite as it can 'make or break' an eHealth implementation. However, I have realized over the years that the typical

eHealth Professional (especially new entrants who have never worked in any clinical environments) does not understand what workflow really refers to.

The common response I get from “Architects” would be that ‘it is the same as Use Cases” and the common response I get from “Analysts” would be “it is the same as Processes”.

Unfortunately, Workflow is not the same as Use Cases or Processes, the three are somehow related but they are definitely not the same (and I am not nick-picking).

Because I travel frequently, I am going to use ‘luggage collection’ as an example of. (I found it difficult to explain workflow using clinical examples because the audiences who don’t understand workflow are those who have never been exposed to any clinical environment!).

Use Case

- A Use Case defines a specific scenario / list of steps, defining interactions between a role (usually known as an ‘actor’) and a system to achieve a goal.
 - The actor can be a human or an external system.
- E.g. Passengers has to clear immigration, proceed to the baggage collection point and wait for their baggage to arrive for pickup.
- *Defining use cases at the beginning of a project helps to understand how the system should be modeled, what are the important scenarios of interactions between the components.*

Process

- A process is a collection of related, structured activities or tasks that produce a specific service or product (serve a particular goal) for a particular customer or customers.
- It often can be visualized with a flowchart as a sequence of activities with interleaving decision points as a sequence of activities with relevance rules based on the data in the process.
- E.g. A plane must first land, taxi and park into the correct dock, wait for the baggage transportation to arrive, open the cargo bay, unload the baggage onto the baggage transportation, which delivers the baggage to the loading bay

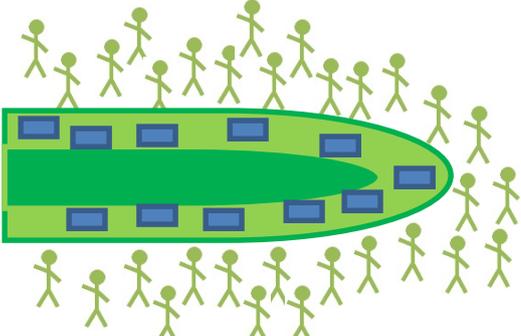
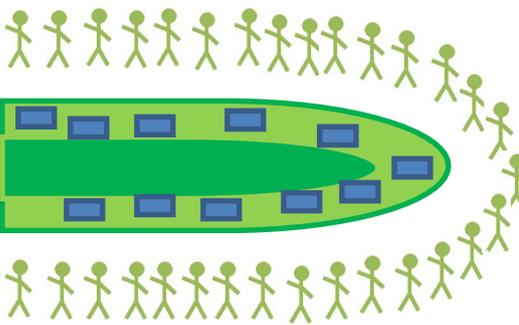
where Baggage Handlers place them into the correct baggage collection point (and the correct conveyor belt) in a specific order (e.g. First come first serve or fragile items first or bulk items first etc. whatever the rules are).

- A **process** begins with a mission objective and ends with achievement of a specific objective.

Workflow

- Workflow is a depiction of the tasks, procedural steps, people, systems, inputs and outputs of information in a business process.
- Workflow is culture and geographical specific; there is no 'best workflow', just 'effective workflow'.
 - **Effective Workflow** is achieved when you utilize the capabilities of your (existing) solutions in your environment, suiting your needs.

To better illustrate what workflow is, let us examine the following examples.

Scenario One – Ineffective Workflow	Scenario 2 - Effective Workflow
 <ul style="list-style-type: none">• Chaotic• Passengers are standing in an un-orderly manner, some blocking the view of others who then are unable to see if their baggage are on the convener belt, resulting in a 'mad rush' to retrieve their baggage when they do finally see it.	 <ul style="list-style-type: none">• Orderly• Passenger observes at a distance if their baggage is on the convener belt, stepping forward to retrieve their baggage only when it is approaching.• Fuss-free, smooth and 'within satisfaction'.

While each scenario illustrates a different **Workflow**, both depicts the same tasks, procedural steps, people, systems, inputs and output of the same process, however, scenario two is much more effective than scenario one!

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After reading the article above, ask yourself this question – Did you really understand what **Workflow** was prior to reading the article? Many people have read that article or heard me present the topic at regional conferences or at universities and the feedback received are pretty much the same – they never truly understand what workflow (in healthcare) really means until they read the article or heard me explain it.

The problem is, most individuals implementing Health IT solutions never had the chance to work with real Health Informaticians. Although many people carry the job title, most of them are actually IT, Health IT or Clinical Professionals (Note: Health IT is not Health Informatics) and in the land of the blind, these “one-eye king” rules.

The sad part is, many ‘experts’ providing Health Informatics mentorship/advice/training are the said “one-eye kings”. You know what is sadder? These “one-eye kings” actually (truly) think that Health IT is a synonym of Health Informatics (Sincere advice: If an ‘expert’ has never worked in a clinical environment or tells you his/her best excuse for the lack of real-world experience is his/her “passion” for Health Informatics, stay away from the person, far far away.)

Is your Subject Matter Expert a N00b?

N00b's thinking

I became a Subject Matter Expert by simply reading and talking to more people in the health informatics industry



Paraphrasing the N00b's thinking

I became a Physician by simply watching medical theme TV series and talking to more healthcare professionals in the medical industry



No wonder our industry is so screwed up!



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Back to the topic of **Workflow**. By virtue of having read the article above, you are already in many sense, more of an expert than these 'one-eye kings'. However, knowing how to identify workflow is just the first step, what is more important is the ability to achieve **Effective Workflow** (Scenario 2 in the article on Workflow).

If you truly wish to “**Bridge the eHealth Divide**” through sustainable innovation in patient-centered care to achieve context-effective adoption of Digital Health in your environment, I encourage you sign-up for BinaryHealthCare’s signature course: The **Mini-HI** (Mini Health Informatician).

Health Informatics

Often confused as a synonym for Health IT, Health Informatics is a unique discipline on its own right that utilizes Technology (including IT), Communication, Health(Care) to improve the quality and safety of patient care. Best described as “*the science, the how and why, behind Health IT*”, Health Informatics is a fast growing but often misunderstood field.

Health Informatics plays a critical role in modern healthcare, driving changes in the delivery of health information that leads to improved patient safety and higher level of care. The increased dependency by physicians, nurses and other health(care) professionals on Health IT systems coupled with the lack of qualified and experienced Health Informaticians translate to high demands for professionals working in the healthcare eco-system to be trained in basic yet comprehensive health informatics knowledge - to serve as **enablers**.

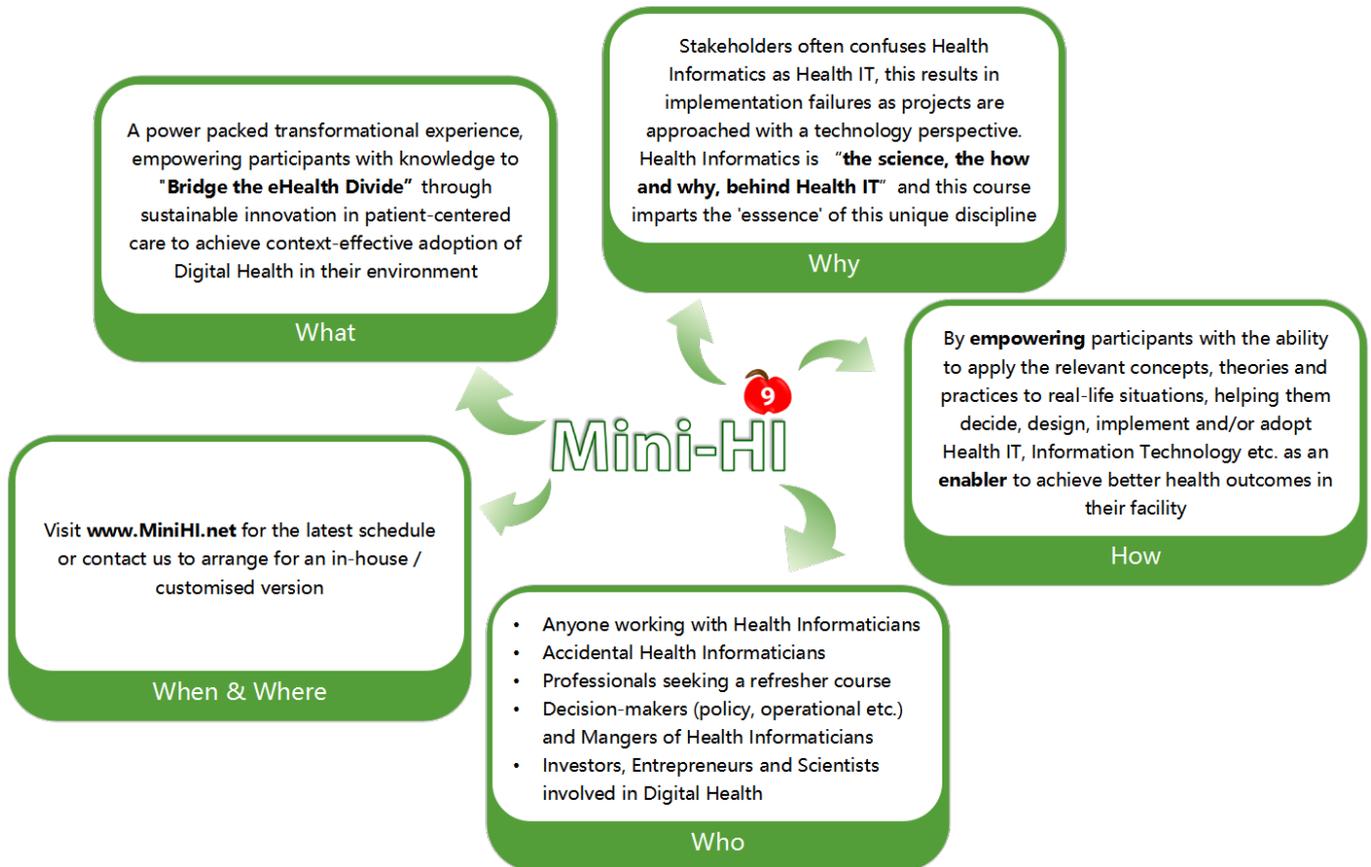
The Mini-HI (Mini Health Informatician).

Delivered over a 2 to 3 days period, the **Mini-HI** is a unique program designed to empower you be that **enabler** by going beyond an essential or basic course (which often leaves participants walking away thinking Health Informatics is IT, resulting in failed implementations) by "Bridging the eHealth Divide" among professionals working within and around Health Informatics (which in the modern world - means everyone working in health, healthcare and medicine).

By empowering participants with the knowledge and understanding of the core body of knowledge essential to Health Informaticians, graduates of the Mini-HI will be able to communicate and apply relevant Health Informatics concepts, theories, and practices to real-life situations, helping them decide, design, implement and/or adopt Health IT, Information Technology etc. as an enabler to achieve better health outcomes in their facility.

BinaryHealthCare

Bridging the eHealth Divide



Do you want to be an Health Informatics **Enabler**? The choice is yours.



More details pertaining to the **Mini-HI** is available at <http://www.MiniHI.net>