Intersystems & Hack Healthcare 2nd Challenge Definition Workshop Report

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GOAL

The goal of the challenge definition workshop held on February 9th was to create a catalogue of challenge hypotheses belonging to the topics explored during the Exploratory Workshop held on December 13th: enhancing data sharing in and between hospitals and enhancing data sharing between the lines of care. Challenge hypotheses are very specific, narrowly defined problems that InterSystems could sponsor at Hack Healthcare, and whose solution can take place within 18 months, without the need of new regulations or technology.

THE METHODOLOGY

Step 01: Choosing the direction of the challenges

During the Exploratory Workshop in December, participants explored two key topics for InterSystems: enhancing data sharing in and between hospitals and enhancing data sharing between the lines of care.

While the first Challenge Identification Workshop in February explored more in depth the first topic of enhancing data sharing between the lines of care, participants of the second Challenge Identification Workshop focused on the second topic: enhancing data sharing in and between hospitals.

Step 02: Identifying issues specific to one stakeholder

Divided in three teams, participants mapped all the stakeholders concerned by the chosen topic, identifying them as specifically as possible. Amongst all the stakeholders listed, they selected a specific stakeholder, or persona, that was either represented by or known very well by at least one of the participants of their team.

Participants examined the following aspects related to their chosen persona in order to analyse their specific perspective on the topic of enhancing data sharing in and between hospitals:

- Their **pains**: fears, frustrations, and obstacles that they need to overcome
- Their **gains**: positive results that they will achieve if all goes well. A success story for resolving the problem
- Their **goals**: what are they trying to accomplish?
- Their **thoughts and feelings**: How do they feel in this situation? What are they thinking about?

Based on this analysis, participants listed problems encountered by their chosen persona, which they then refined into challenge hypotheses.

Persona selected	**Problem(s) identified**
Orthopaedist in a hospital	• During the consultations, the specialists do not encode their notes properly, and important information often ends up in a plain text file in the “comments” field.
Orthopaedists working in two different hospitals	• When a patient has to go to an orthopaedist in two different hospitals - even in the same city - these hospitals have no historical data, they do not share the patient’s medical file, imagery tests etc. • Hospitals often perform redundant tests because they can’t directly (or quickly enough) access test results from another hospital
Hospital considering a third-party platform	• Hospitals do not see the added value of sharing information share patient data beyond the legally required minimum. For the same reason, they also do not invest in the quality of data they share (resulting in incorrect or incomplete coding).

Step 03: The challenge hypotheses

What is a challenge?

A challenge is, in the framework of Hack Healthcare, a very specific, narrowly defined problem whose resolution can take place within 18 months and would not require new regulations or technology.

Hack Healthcare is the open, public sandbox that brings together all healthcare ecosystem stakeholders in a seamless, successful collaboration between people and companies – even between those that are usually in direct competition with each other – building bridges across the ecosystem.

An example of challenge from Hack Healthcare 2022 Edition:

“Accurate picture of patient journey: How might we collect, verify, augment and analyse these data to build an accurate picture of the patient journey, taking into account the patient experience and clinical data?”

Based on the previous exercise and the problems identified, each group generated a series of challenge hypotheses related to their selected persona. They stretched these new challenge hypotheses with different angles.

The Outcomes

The findings and discussions of the workshop helped generating the following challenge hypotheses:

Enhancing data sharing in and between hospitals – from the perspective of an orthopaedist working in a hospital:

During the consultations, the specialists do not encode their notes properly, and important information often ends up in a plain text file in the “comments” field.

- How might we help specialists feel the benefits of properly encoding their notes (e.g., impact for research, better patient experience, time savings across the healthcare system, etc.) without micro-managing them?
- How might we get hospitals to provide specialists with tools for simplifying / accelerating encoding, and train specialists in using them?
- How might we allow patients to verify, validate, consult notes taken by the specialist?
- How might we accelerate encoding by automating encoding of plaintext notes, and letting specialists validate the encoded notes?

What would be the first gains if we could find solutions to these points above?

- It would decrease the costs for the hospital and the specialist as it would be less time-consuming and the risk of errors and/or readmissions would also decrease.
- It would create a better communication with the patient. Reassuring the patient would also give more time for the human aspect.
- The note validations from the specialist by the patient could help him/her to better understand the disease and would help him/her to describe and/or identify better his/her symptoms to find the right diagnostic.

Enhancing data sharing between the lines of care – from the perspective of two orthopaedists working in different hospitals:

When a patient has to go to an orthopaedist in two different hospitals - even in the same city - these hospitals have no historical data, they do not share the patient's medical file, imagery tests etc.

- How might we create, in a digital and paper form, a template specific to orthopaedic cases so that the communication from one specialist to another via the patient is possible?
- How might we motivate/incentivize a specialist to share an accurate medical report/file with a similar specialist in another hospital?

Hospitals often perform redundant tests because they can't directly (or quickly enough) access test results from another hospital.

- How might we incentivize an hospital to decrease or eliminate redundant tests, from blood tests to radiological examinations?

What would be the first gains if we could find solutions to these points above?

- The good cooperation between specialists could improve extended care.
- It would allow to give better shared diagnostics among experts avoiding mistakes and errors with lack of sharing information.

Enhancing data sharing between the lines of care – from the perspective of a hospital considering a third-party platform:

Hospitals do not see the added value of sharing information share patient data beyond the legally required minimum. For the same reason, they also do not invest in the quality of data they share (resulting in incorrect or incomplete coding).

- How might we build awareness in the healthcare ecosystem of the cumulative positive effects of sharing health data?
- How might we further incentivize medical providers to collect and share high quality healthcare data?
- How might we incentivise hospitals to share their patients' data to a central, autonomous and independent platform, in order to aggregate the data and make it available to other stakeholders?

What would be the first gains if we could find solutions to these points above?

- It would improve medical data quality.
- It would allow for all actors to gain time.
- Hospitalization insurances could play a facilitator role to incentivize hospitals to share their patients' data

What's step 4?

Out of all the challenge hypotheses generated during the three workshops, InterSystems will establish the two final challenges to sponsor at the Hack Healthcare event. Along with all the other challenges brought by Hack Healthcare partners, the two challenges selected by InterSystems will be subject to review from an extended group representing the entire healthcare ecosystem in a series of Ecosystem Workshops to ensure they stay business relevant for several companies and organizations. After that, the challenges will be presented to the Hack Healthcare event on June 13-14, 2023 and solutions around them will be co-created from all event participants.

This workshop was held in the framework of the partnership between InterSystems and Hack Healthcare (www.hackhealthcare.be), a 2-day open innovation event aimed at creating ingenious, unorthodox solutions for the Healthcare industry.

Thank you to all the participants

Etienne Cloet, Owner Bowec, **Hendrik Cloet**, Owner Bowec, **Marius Declerck**, CEO E-Health Venture, **William Declerck**, Medical Consultant E-Health Venture, **Jens Declerck**, Data Quality Manager I-HD, **Gert Vanhaegt**, Owner M4B, **Regis Verschueren**, Business Development Manager Digita, **Lauro Vanderborght**, CRO & CFO Digita, **Tommy De Kimpe**, Senior User Experience Consultant; **Andries Demont**, Sales Engineer InterSystems; **Geoffroy Vitoux**, Marketing Programs Manager InterSystems; **Jelle Michiels**, Sales Engineer InterSystems; **Jan Vekemans**, Country Sales Manager InterSystems

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