9 KEY QUESTIONS YOU SHOULD BE ASKING ABOUT INTEROPERABILITY

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The search for true interoperability can be time consuming, frustrating, and more often than not, confusing. Wide claims are often made about interoperability solutions, only to later find they aren't truly interoperable. Oversold and under-delivered may be the industry norm, but it's not a certainty. The best way to ensure you're pleased with your interoperability solution is to ask the right questions from the start. Consider the below a primer on the three C's to true interoperability: **CARE, COLLABORATION AND COST**.

CARE.

This is where all conversations should begin—with the problem we are trying to solve. Data isn't nameless. Each datapoint represents a real person in need of, or receiving, care. There's a social pact between care providers, researchers, and the individuals from whom they collect data. People trust their information will be used responsibly in the quest for better care—benefitting themselves, their families, and extending to their communities. In turn, it's incumbent upon us to select a solution that not only provides the most accountable cost or the highest levels of collaboration, but also treats this data with the reverence it deserves and empowers you to use it to its highest possible potential.

1 *How does it approach the problem?* The most important question we can ask a vendor is how the solution will impact our ability to deliver care to patients and communities. Can the vendor come to the table and have a substantive, critical conversation? Oftentimes we get bogged down in financial and technical details, losing sight of the human needs we are trying to address when we implement a technology. Vendors who prioritize the impact of their technology at the clinical level—for research or practice or population health—are more likely to be committed to delivering a lasting and durable solution than those that view it as a purely technical challenge.

2 *Are you seeing the whole picture?* Does the solution provide complete answers from all sources available, or does it merely offer a snapshot of recent interactions? When a doctor seeks out patient records, he or she wants—and needs—the whole picture to provide the highest level of care. A patient's five most recent interactions might satisfy a requirement (see number 4 above), but it's not enough to truly benefit the patient and support physicians in their work. Researchers, too, need a solution that allows analytics and data visualization tools full access to all the data possible—presenting the most complete answer, accelerating research and improving care—and setting the stage for sustainability and impact. True interoperability offers complete answers without compromise. It empowers us to look at the whole patient in a dynamic way, allowing for prospective, retrospective and in-the-moment analysis. Discovery happens when you effectively capture all three.

3 *Is it focused on minimums, or is it looking ahead?* Meeting meaningful use requirements is on the minds of IT leaders, informaticists, clinicians, investigators and administrators alike, along with other looming federal, local, and institutional regulations. But if a sales team touts its ability to help you meet the minimum requirements for each of these, without looking beyond the minimums to what's next, you may want to reconsider. Are you just meeting regulatory requirements for the sake of doing so, or are you really seeking to generate comprehensive value and impact from your investments in HIT, and the ensuing availability of data resources and assets? A true interoperability solution not only meets and *exceeds* the minimums, but is ready for what's ahead. Satisfying today's requirements isn't enough in a rapidly-evolving industry. Your solution should be capable of supporting constantly changing biomedical big data standards, types, and models, in a manner that is fully independent of any and all data generating technologies.
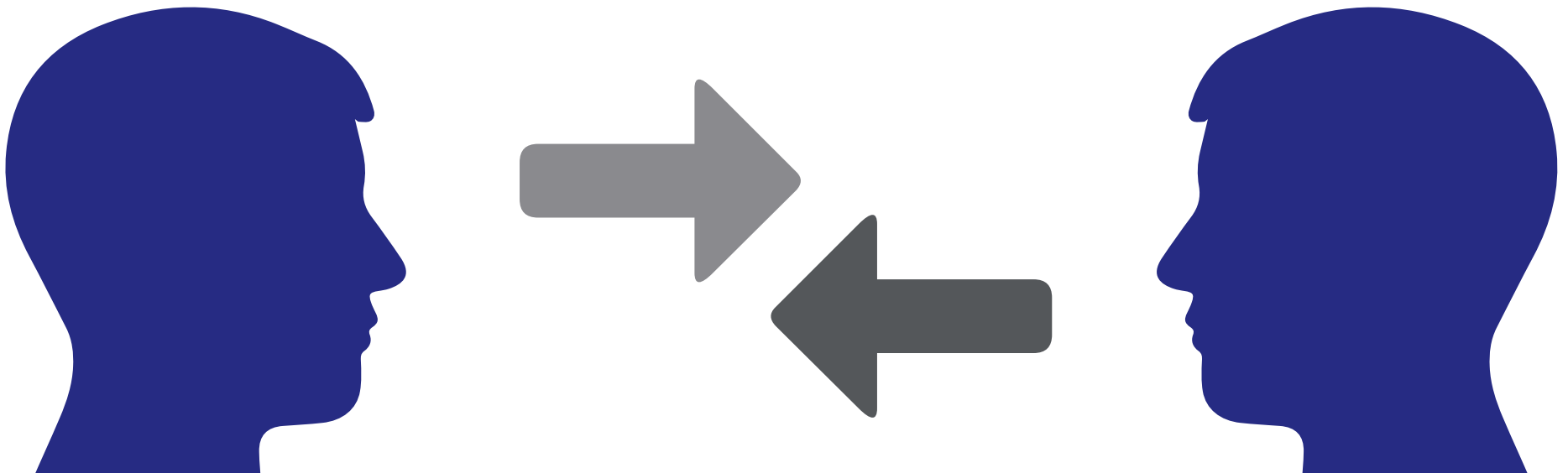
COLLABORATION.

You'll want to evaluate both the collaborative nature of the vendor, as well as how well the solution itself supports the collaborative nature of your work. Collaboration is a two-way relationship, and discovery can't happen without a solid partnership that works both ways.

4 *Does it enable collaboration while maintaining ownership and security?* True interoperability supports sharing data fully, without sacrificing peace of mind. Ask about modularity—is it a centralized platform system or a distributed multi-platform system? Does the solution offer full transparency and traceability of the data? Will your data be secure both in transit and at rest? At what bit encryption level? Does the solution provide underlying technologies that fully support your policies surrounding ownership, stewardship, and valuation? Will your data stewards maintain control of valuable data resources or does the solution attempt to centralize that process? Your team and your collaborators should be empowered to control where, when, and how data is shared with others and harmonized across standards and models. Gauge your comfort level. A true interoperability solution should leave you feeling confident that you maintain control over your data and that it's safe at all times.

5 *Does the vendor fully understand the complexities of the healthcare and research environment?* Or is just code? You are conducting your work in arguably the most complex healthcare and research environment in history, and it's vital your vendor has an intimate understanding of this ecosystem. The majority of failed attempts at interoperability in healthcare and academic research stem from a lack of vendor experience in these areas. A failure to understand the nuances of your working environment and the fundamental issues around data sharing assures a failure to deliver a true interoperability solution that satisfies your needs. Interoperability is not purely a technical problem, a policy problem, or a user experience problem. It's a systems-level strategy—meaning technology, people and policy—that yields systems-level benefits, in turn overcoming the silos that prevent us from achieving the triple aim. This all-inclusive approach is needed to ensure project success and sustainability, not to mention value generation.
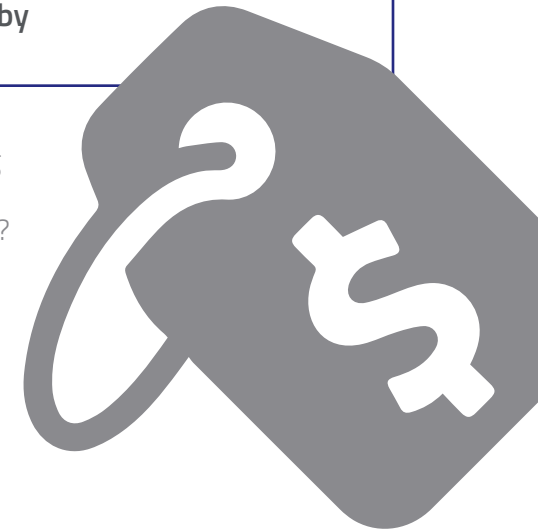
COST.

Variables in cost structure can differ wildly. Avoid surprises—and duplicative technology investments—by looking ahead. Take time to evaluate costs both seen and unseen, for the lifetime of the engagement.

6 *When will it be ready to deploy?* A clear understanding of the time a solution requires to implement is crucial. Is it a working model or a prototype? What activities will the vendor need to complete before you can begin accessing and working with the data? Does the solution require the data be moved to a centralized location, or that the data be duplicated in any way? Can it interoperate with current HIT data generation platforms in a turnkey manner? What is the mapping process, and how long will it take? Some solutions will take nine months alone to map the data you're trying to connect, while others will have a reservoir of terms at the ready, with the majority of connectors already built. You shouldn't need to start from scratch. When you do, cost and speed are dramatically increased, as is the time that elapses while you wait to get information out of your datasets. And as any researcher knows, the faster we can answer our question, the faster we can move to the next one—and that's where the magic is.

7 *How inconvenient will it be?* It's important to know ahead of time exactly what existing activities you'll be expected to change. (Here's a hint: the answer should be none.) Disruptions to your current workflows and processes mean you'll pay in both money and time. A true interoperability solution will not disrupt your process of collecting data, the manner in which it's stored, where it's stored, how it's structured or what language the data speaks. It will connect your data as it is, and where it is. You should not be required to bend and flex to a solution; your solution should adapt to you.

8 *What investments are required before we can see results, and what are the continuing costs?* Are you required to purchase new hardware as well as software or does it make use of your existing infrastructure? Will you be creating redundant resources? Does the purchase model present high initial deployment costs, accompanied by set ongoing costs, or does it provide incremental deployment and management costs that are driven by utilization? Are the costs of the infrastructure and services shared among those accessing the data, and directly aligned with their level of participation? Is the solution elastic and scalable, expanding and contracting based on your needs, or is scaling and access constrained by physical infrastructure? Your costs should always be commensurate with the benefits of scale. A true interoperability solution allows each participant to capitalize on investments already made and is flexible enough to fit changing needs.

9 *Has it been proven to deliver returns on the investment?* In an increasingly competitive and resource-constrained environment, sustainability concerns are paramount. You are prepared to invest fully in technology to fuel research and treatment, but is the vendor prepared to present examples of the solution's ability to achieve a return on that investment? It is a common goal that for each dollar spent, three dollars can be realized in return. This 1:3 return is necessary to sustain this great work and open greater opportunities for care. A true interoperability solution supports self-sustaining programs with uninterrupted focus on improving outcomes. Proven ROI means continuation for institutions and programs dedicated to uncovering breakthroughs in medicine that save lives.

Finding a vendor that fits your needs isn't easy. Neither is achieving true interoperability. As you make your way through the selection and evaluation process, keep the above in mind and be ready to ask a seemingly endless number of questions. And even more importantly, take note of whether the vendor is truly listening. Never underestimate the value of feeling understood and supported in your work. True interoperability helps further research, enhances treatment and care, reduces healthcare costs per capita and ultimately, improves human lives.

DISCOVER TRUE INTEROPERABILITY REALIZED IN HEALTHCARE.

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True interoperability
realized in healthcare.

Interoperability shouldn't require you to compromise. In *The **Avec**® Advantage: True Interoperability Realized in Healthcare*, we detail how we are truly enabling the shared vision of data-driven healthcare today. Read our whitepaper to discover:

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– 6 core benefits of the true interoperability with the Avec® platform
– The real outcomes of true interoperability in healthcare

– A case study revealing the importance of true interoperability in rare disease, and how Avec® is bridging global data sites with the Hairy Cell Leukemia Research Foundation
– A side-by-side comparison of Avec® and other data integration platforms

Initiated at The Ohio State University, in collaboration with investigators and technologists on an international scale, Avec® was purpose- built to deliver true interoperability in healthcare. Download our whitepaper to discover how our platform achieves interoperability without compromise.

THE AVEC® ADVANTAGE:
TRUE INTEROPERABILITY REALIZED IN HEALTHCARE

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