Scaling quality and financial ROI through a novel cloud-based inter-hospital sharing network of operationalized best practice microlearning job aids

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Background

Children's and rural hospitals are often isolated and under-resourced, yet responsible for care over vast geography. With clinical standards constantly evolving and resources constrained, Children's Hospital Association, Solutions for Patient Safety, and the Rural Health Transformation Program have promoted cross-institutional knowledge sharing.

Objectives

- Develop a cloud-based content-sharing network enabling inter-hospital exchange of structured, standardized, and customizable microlearning resources (JIT job aids).
- Deliver self-service searchability by use-cases, content types, and specialties.
- Facilitate creation of a proprietary knowledge graph and integration with AI.

Problem Statement: There is a critical gap between clinical standards and bedside practice. Efficient operationalization of best practices requires actionable, locally adaptable job aids, matching the learning styles of today's workforce. Resource-constrained facilities cannot independently create support for all the high-risk, low-frequency practices they must deliver.

31,759+ microlearning resources from 16 health systems.
Novel knowledge-sharing network of 3,613+ best-in-class job aids.
Faster staff onboarding (40-60%). Training savings (up to $14,000/RN).
Decreased hospital-acquired conditions (up to 75%). ROI in 3 months.

Methodology

- We had originally deployed our just-in-time microlearning solution (Elemeno, Oakland, CA) to adapt long-format training materials into customizable, multimedia, bite-sized job aids (Fig. 1), ultimately creating a database of thousands of unstructured resources from dozens of hospitals.

Fig. 1: Transformation of training into microlearning job aids customized to each hospital.

- To address scale, we have developed a structured content strategy, employing a proprietary taxonomy and metadata-rich content model with goals of improving searchability, discoverability, and usability (Fig. 2).
- We then created a cloud-based sharing network, to allow hospitals to exchange structured, standardized, and customizable job aids through a self-service model.
- Continuous content additions contribute to a growing database, supported by a proprietary AI-integrated knowledge graph.
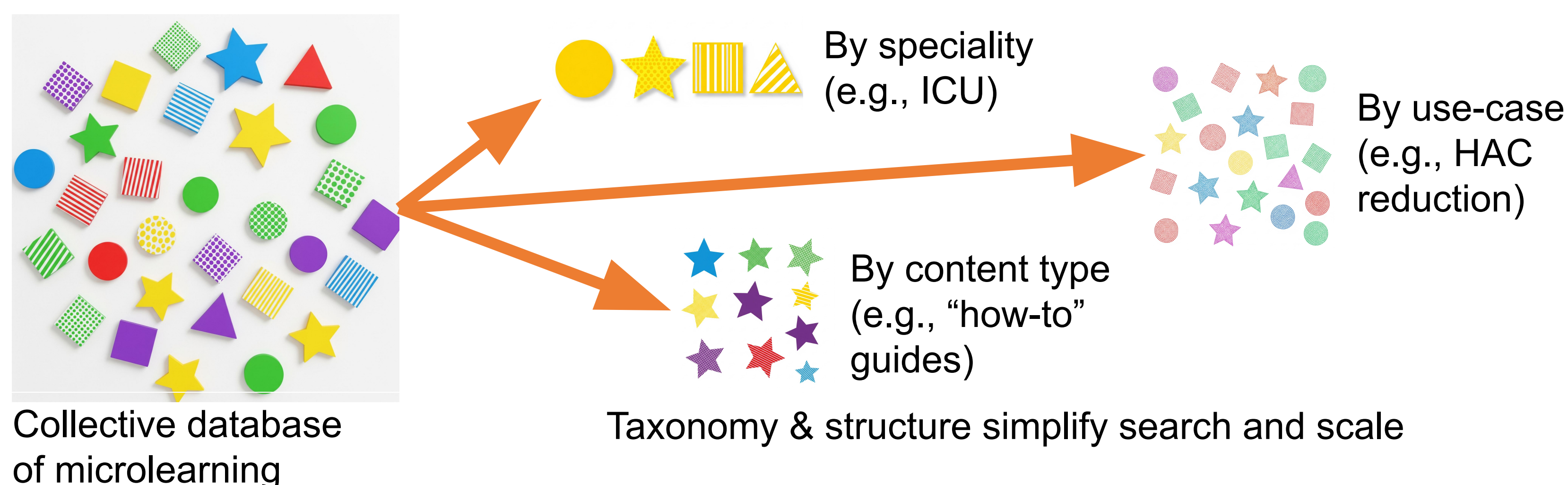

Collective database of microlearning

By speciality (e.g., ICU)

By content type (e.g., "how-to" guides)

By use-case (e.g., HAC reduction)

Taxonomy & structure simplify search and scale

Fig. 2: Continually growing cloud-sharing network of metadata-rich structured content.

Results & Impact

- 16 health systems, including 7 children's hospitals, contributed job aids to the inter-hospital sharing network (Fig. 3), with 275 adopted across institutions.
- 56% of current live client resources are shareable within the network; Clinical References (1,250) and Clinical Procedures (399) are the most common types.

Fig. 3: Schematic representation of the inter-hospital sharing network comprised of 70+ hospitals.

Inter-hospital sharing network case study:

- In January 2025, Elemeno launched in a 2-hospital, 5-free-standing ED system serving rural communities, with only 3.5 educator FTE; ICU and ED job aids originated from the sharing network, shortening time-to-implementation.
- In 3 months, in-seat learning time decreased 4h/RN, saving $175/RN. Staff satisfaction increased.
- Educators reported increased bandwidth for unit-specific training.
- App deployment has expanded to all other inpatient departments system-wide.

Conclusion

- This novel cloud-based inter-hospital sharing network of microlearning job aids facilitates the rapid adoption of high-impact clinical standards, scaling quality and reducing costs.
- Broad hospital participation (pediatric and adult) reflects a growing culture of collaborative exchange.
- Financial ROI can be realized in resource-constrained institutions within a few months
- This model can be extended to any group of isolated and/or under-resourced hospitals (pediatric, rural, federal) to sustainably elevate quality care for both children and adults.

References

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