

Automation: Skills of the Future

"Ideally, automation should free technologists from time-consuming duties so that they can expand their role in more challenging aspects of laboratory operation."¹ Sound like the modern lab? This is from an article published in 1973. Discussion around how automation will affect the role of medical lab professionals remains largely the same almost 50 years later. So why is it still such a popular topic?

Automation, and its role in the medical lab, has evolved since 1973 — and it continues to evolve today. As automation changes workflow and roles in the lab, the key to having your lab ready for the future may lie in continually evaluating how medical laboratory professionals can adapt to meet new challenges and priorities. Here are some predictions we've collected.

Be Ahead of the Curve

When asked about the future of the pathology lab, Dr. Timothy Stenzel, director of the FDA's Office of In Vitro Diagnostics and Radiological Health, says, "Learn the basics and keep learning, because the field is going to keep changing in the future."²

Automation is a big part of this change, so embrace it. Keep on top of automation trends and news. Knowing what's out there will prove valuable when it enters your lab, as you can quickly integrate automation into your current systems, making the most of your resources and time.

Troubleshooting the Lab

Hone in on technical know-how.

It's one thing to use the equipment, but it's another skillset to understand it. John Morgan, director of marketing at Elemental Machines states, "You can't control what you don't understand."³

Gain the knowledge needed to truly understand the machine — what exactly it does, how it works and what it needs to run smoothly. Knowing when something isn't right and identifying the issue will be critical when working with new forms of automation. If you have the right technical knowledge, you might be a breakout hero when things go wrong.

Data Scientists

A large change from automation is the drastic increase in throughput, and with greater testing volume come greater amounts of data. What labs do with that data — in terms of

analysis, organization, and distribution — could determine the value of the system itself. Lab professionals involved in data management and LIMS (laboratory information management system) will be vital to automated lab operations.⁴

Be the Voice of the Lab

As automation increases throughput and data, having a liaison between the laboratory and outside stakeholders will be key.⁵

Think about who calls your lab with issues and questions. Why do the calls come in? How are they resolved? Re-evaluating these calls as a task and assigning someone to this specific role is the first step in establishing a liaison. Medical laboratory assistants (MLAs) with customer service, problem-solving and communication skills may be best positioned to fill this role.

Customer Service in Health Care

While automation flows into the pre- and post-analytical workflow, it does not fill the need for human touch. The customer service culture will be key in setting your lab apart from the rest. Consider how to apply customer service in multiple areas of the lab to ensure your whole system supports patient care.⁶ Interpersonal and communication skills (again, think customer service) will be vital to fulfilling this role in a way that upholds the reputation of your institution. ■

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REFERENCES

- ▶¹Automation and the Medical Technologist, *Laboratory Medicine*, Volume 4, Issue 8, 1 August 1973, pp. 20–22, <https://doi.org/10.1093/labmed/4.8.20>
- ▶²Silva B. Clinical lab industry AMPed for future of molecular pathology, *Medical Laboratory Observer*, Volume 52, Number 2, February 2020, pp. 36–37
- ▶³Kridelbaugh D. Lab Equipment Maintenance: Be Prepared for the Unknown with Preventative Care, *Lab Manager*, Volume 14, Number 11, December 2019, pp. 18–21
- ▶⁴Tennenhouse E. How LIMS Are Helping Clinical Labs, *Lab Manager*, www.labmanager.com/product-focus/how-lims-are-helping-clinical-labs-4314
- ▶⁵Anderson V L. Customer Service and Its Importance in the Clinical Laboratory, *LABMEDICINE*, Volume 39, Number 4, April 2018, pp. 197–200 DOI: 10.1309/AYKRJTBJ4EE6WMCW
- ▶⁶Pickett R B. Beyond Customer Service, *Lab Manager*, www.labmanager.com/business-management/beyond-customer-service-9866

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