

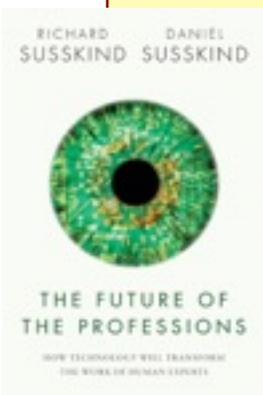
The Future of Professions

A Survey Report

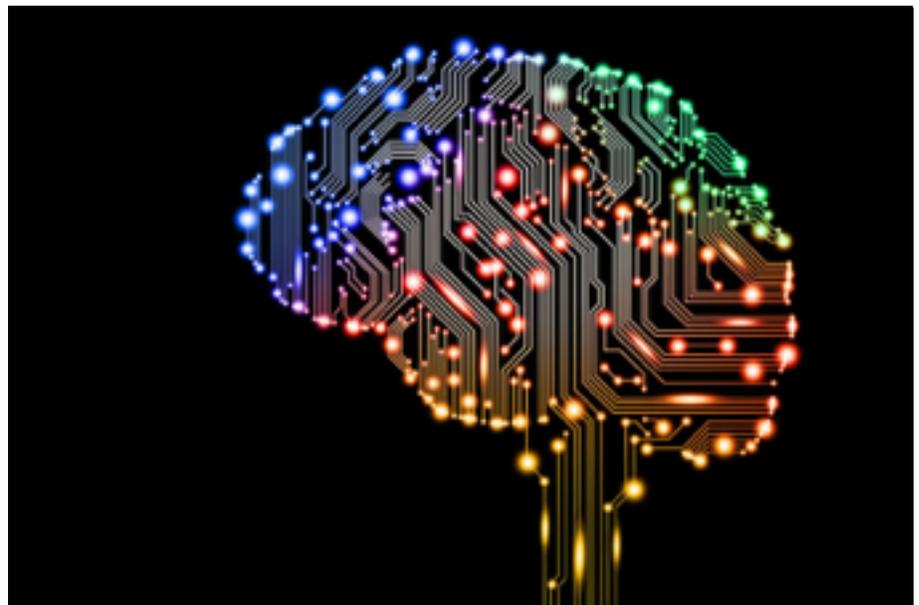
by Mursal Khedri & Perry Kinkaide

Inspiration

The Future of Professions Survey report drew inspiration from Richard and David Susskind's book of the same name. This book is about the professions and the systems and people that will replace them. The book focuses on doctors, lawyers, teachers, architects, amongst many other professions, and the organizations in which they work and the institutions that govern their conduct. The authors theorize that we are on the brink of a fundamental and irreversible change in the way that expertise is



made available in society. Technology will be the main driver of this change. They also claim, in the long run, we will neither need nor want professions to work in the way that did in the twentieth century and before.



With developments in genetics, artificial intelligence, robotics, nanotechnology, 3D printing and biotechnology, to name just a few, we are facing an exponential growth in information processing. These developments are laying the foundation for a revolution more comprehensive and all-encompassing than anything we've seen before. Smart systems will help tackle problems ranging from supply chain management to climate change, and will ultimately out-perform human beings at most tasks.

While the impending changes hold great promise, the impact on consumption and employment created by it will pose

major challenges to professionals, requiring proactive adaptation by governments, regulatory bodies and professions.

As entire industries adjust, most professions are also beginning to undergo a fundamental transformation in the way that their 'practical expertise' is made available to society.

Traditionally, practical expertise has been held in people's heads, textbooks and filing cabinets. Increasingly, this expertise is being stored and represented in digital form in a variety of machines, systems and tools. As a result, it is being handled, shared, used and reused in very different ways.

Word Clouds highlighting the respondents' most frequently mentioned professions.



Figure 1A: Primary professions.



Figure 1B: Other professions.

Today, technology and the market's thirst for innovation are at the core of this change, triggering a debate that is often polarized, between those who foresee limitless new opportunities and those who foresee massive dislocation of the professions. The more likely reality is specific to the industry, region and profession in question.

The survey of the future of professions in Alberta is a first step in becoming specific about the changes at hand. It taps into the views and expertise of those who are best placed to observe the dynamics of their professions – the professionals themselves. By asking Alberta professionals what the current shifts mean on competition and

regulations, we were able to assess their impact on the professions future. We also surveyed the professionals and their regulatory bodies for their thoughts on emerging skills and competencies required to remain competitive and their outlook on the changing expectations of their clients.

We want to thank the Peter Lougheed Leadership College for introducing us, and supporting the conduct of this study as a mentoring opportunity between the University of Alberta and the Alberta Council of Technologies Society.

EXECUTIVE SUMMARY

The Alberta Council of Technologies and The Peter Lougheed Leadership College at the University of Alberta, prepared a study on the topic of technology, innovation and the future. This survey was designed to assess the effects of technology, changing client expectations, and competition on the future of the professions in Alberta. The study was launched in May/June 2016 and was presented to ABCtech's 13,000 subscribers.

The survey respondents are representative of the following professional affiliations: Engineering & Design (30%), Management & Strategy (20%), Health & Biotech (11%), Finance & Accounting (8%), Legal & Security (8%), Agriculture & Food Processing (5%), Education & Research (5%), Chemicals & Manufacturing (3%), Construction & Real Estate (3%), Communications & Marketing (3%), Forestry & Wood Products (3%) and Transportation & Logistics (1%).

Highlights of the study include:

- Increasing competition is expected to result in less regulation both within and between professions;
- Technology is changing the expectations of clients and professional-client relationships;
- Clients are expected to be more informed and interactive in the future; a transition from a passive client to a more market-savvy consumer;
- Technology is elevating client's expectations of the practitioner, increasing expectations for faster and more efficient service;
- Continuous learning and training are essential for sustaining the trust and future relevance of the professions;
- No clear consensus on whether the influence of the clientele/consumers should be increased in regulation professions.

EXECUTIVE SUMMARY CONTINUED

Our survey findings are consistent with the argument of Susskind (2016) that access to information technology is: 1) contributing to increased competition within and between professions and 2) increasing the awareness and expectations of clients, affecting the professional–client relationship. Market forces – the increasing expectations of clients-cum-consumers as per Susskind, are expected to have an increasing impact on the regulation and governance of professions. Continuous learning - already mandatory, is further elevated in importance with the integration of information technologies serving as an aide – perhaps even an alternative to professional services.

Online Survey Design

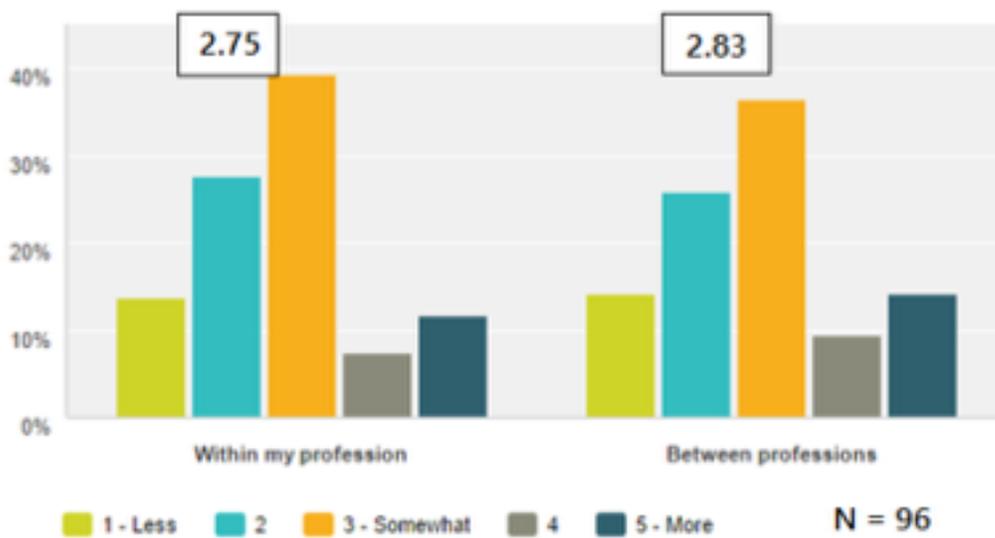
1. The survey was launched in May/June 2016 to ABCtech’s followers and consisted of several questions. The survey results were consolidated and incorporated into this report.
2. The professions of interest for our study were lawyers, engineers, teachers, accountants, management consultants, pharmacists and health (doctors and nurses).

Survey Respondents Profile

The viewpoints of the survey respondents form the basis of this report. The regulated bodies that are represented include the: Association of Professional Engineers and Geoscientists of Alberta, College and Association of Registered Nurses of Alberta (CARNA), Institute of Certified Management Consultants of Alberta (ICMCA), Chartered Professional Accountants of Alberta (CPA), Real Estate Council of Alberta (RECA), College of Physicians and Surgeons of Alberta (CPSA) and the Law Society of Alberta.

QUESTION 1: SHOULD THERE BE A CHANGE IN THE REGULATION OF COMPETITION IN ALBERTA BETWEEN AND/OR WITHIN PROFESSIONS?

Respondents expect increasing competition to result in less versus more regulation (1+2 v. 4+5) both within (42% vs. 20%) and between (37% vs. 22%) professions.



Within

- “Professional organizations often make members practice in a funnel or practice area, thereby, limiting their scope and killing innovation” — Engineer
- “Non-designated practitioners who provide services can endanger the faith of the profession as a whole” — Accountant
- “Regulated professions must ensure public health and safety are properly managed, as well as environmental concerns. Only certified professionals should be allowed to practice.” — Engineer

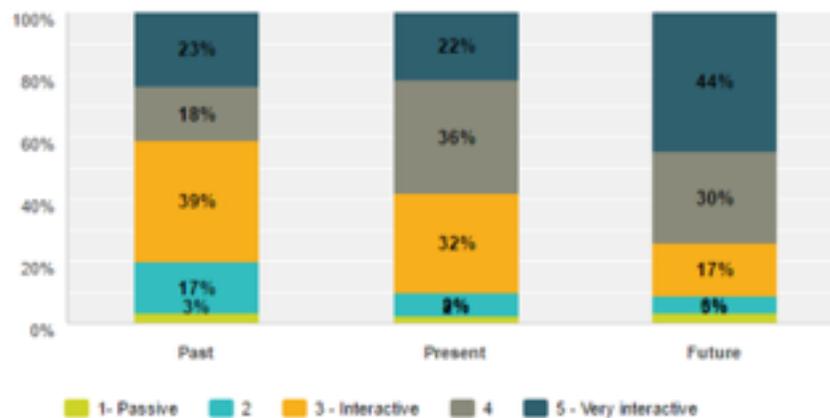
Between

- “Embracing open source and active sharing is the way forward.” — Teacher
- “Professions should be governed by rules developed in association with international bodies” — Architect
- “Governments should not compete with the private sector by offering (unqualified) services at no charge.” — Management Consultant

Designations Issues Services Understand
 Professional Place Competition
 Charge Regulation Question
 Profession Appears Public Reduce
 Engineering

QUESTION 2: PLEASE RATE THE PAST, PRESENT, AND FUTURE RELATIONSHIP EXPECTED WITH YOU BY YOUR CLIENTS/CUSTOMERS.

Respondents view their clients/customers as increasingly more interactive than passive, more so in the future (74% vs. 9%) than currently (58% vs. 10%) or in the past (41% vs. 20%).



	1 - Passive	2	3 - Interactive	4	5 - Very interactive	Total	Weighted Average
Past	3%	17%	39%	18%	23%	90	3.18
Present	2%	8%	32%	36%	22%	88	3.45
Future	3%	6%	17%	30%	44%	88	3.61

Past

- “Multidisciplinary education programs.” — Doctor

Today

- “Clients are expecting consultants to be more actively involved in the implementation of recommendations.” — Management Consultant
- “Use of social media” — Teacher
- “People are much more relationship-minded.” — Nurse

Future

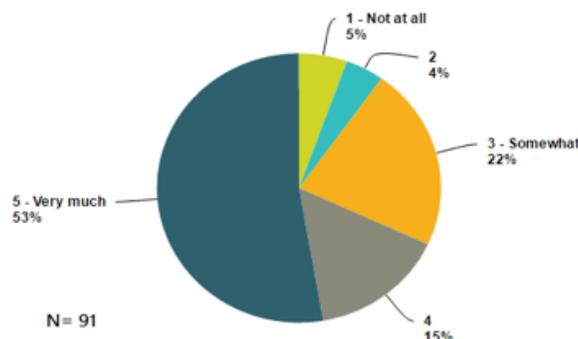
- “Connectivity and instant access changes expectations.” — Engineer
- “I expect that more communication among professionals on the team going forward will enhance the competitiveness of any firm.” — Accountant
- “The younger generation wants to be part of all decisions rather than delegating. More explanation required if deviating from Google path or explaining why alternatives do not apply to their circumstances.” — Management Consultant

Relationships Success Expect Projects
Technology Electronic Access Decisions
Clients Government Professional Retired
Knowledge Economy Interaction

In the past, when in need of expert guidance, clients turned to the professions. Their members knew things that others did not, and they drew on their knowledge and experience to solve problems. Professions acted as “gatekeepers” of their exclusive body of expertise. Today, however, this arrangement is under threat due to technology and the democratization of knowledge access. Many survey respondents viewed their clients as better informed and acting as if they understand more. A challenge the professions are facing, now and in the future, is of changing client expectations; the professions are no longer the exclusive gatekeepers of knowledge.

QUESTION 3: IS CONTINUOUS LEARNING BY YOUR PROFESSION’S PRACTITIONERS REQUIRED DUE TO CHANGES IN TECHNOLOGIES? COMMENT ON WHAT MAY BE CONTRIBUTING TO CHANGING EXPECTATIONS.

Respondents are aware that changes in technologies are increasing the requirement for continuous learning in the respondent’s profession(s).



Very Much

- “Continuous professional development is a key aspect of professional engineering.” — Engineer
- “Professionals must constantly maintain their competence with respect to new technologies. A rapidly emerging and disruptive force will be point of care technologies, which will empower individuals and further empower professionals in their roles.” — Pharmacist
- “The world is moving towards more complex technologies, so continuous learning is must.” — Lawyer

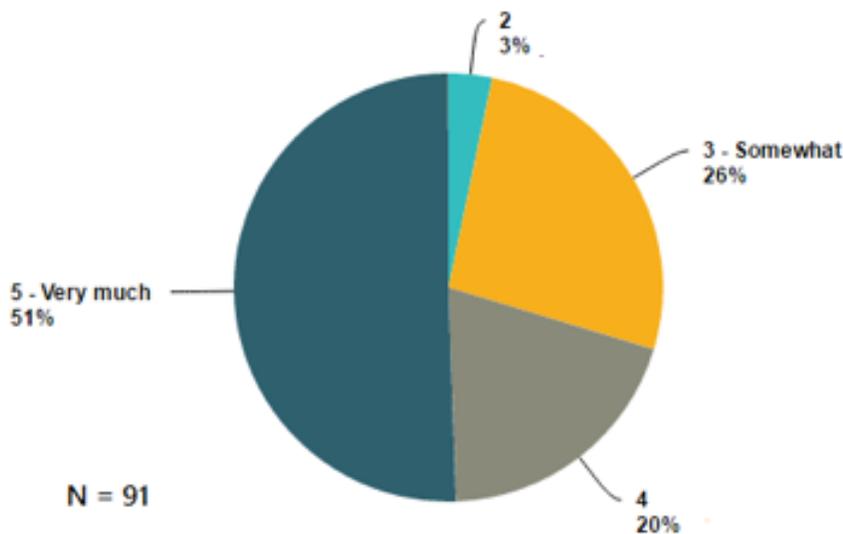
Not at all

- “Required, but not due to emerging technologies.” — Teacher
- “Keeping up to date with current technologies is very much an independent pursuit.” — Nurse
- “Continuous learning requirements are more related to changes in laws and regulations.” — Real Estate

Competition, new technologies and increasing client expectations, i.e., market forces, may lead to an increase in unethical practices and an even greater need for continuous learning.

QUESTION 4: IS TECHNOLOGY CHANGING THE EXPECTATIONS OF CLIENTELE/ CUSTOMERS SERVED BY YOUR PROFESSION?

Almost all (71%) of respondents view technology as changing the expectations of their professions clientele/ customers. More than half view technology as very much changing client expectations.



Very Much

- “As communication and technology improves, savvy clients will expect their vendors to be current.” - Engineer
- “No longer is the doctor the only one in the room who knows the facts” — Doctor
- “Technology facilitates a temptation for clients to rely on Professor Google.” — Management Consultant

Not at all

- “It is the interaction with the clients that determine expectations, not necessarily keeping pace with the technological advances.” — Architect

Tools Research Educated Health Access Longer
Clients Faster Expect Delivery
Technology Innovation Services Living

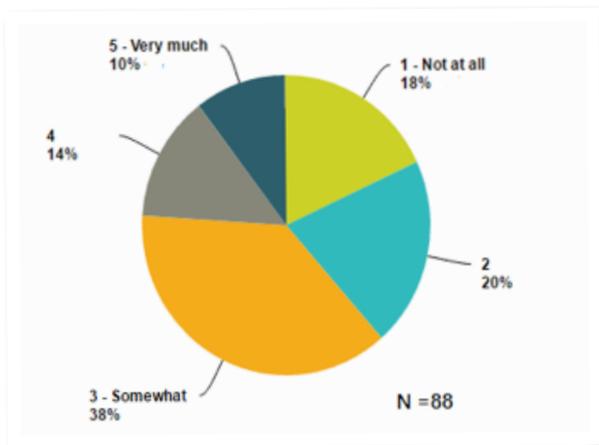
As per Susskind, individual experts and specialists are those who know more than others, and offer an essential service. Their services have been tailored to their clients and their specific requests or problems. However, with the open access to information through for example the World Wide Web, clients already “know” what they want from their professionals. Patients no longer come to their doctor’s office seeking a treatment plan, more often they’re coming to confirm their self-diagnosis. Clients are becoming consumers.

Savvy clients are expecting their vendors to be current. Technology has enabled both instant access to information and improved access to service. Respondents of our survey indicated that they were under tremendous pressure to provide services quickly, accurately, and cost effectively. Many respondents echoed this sentiment by indicating their clientele’s need for more personalized services and more specific recommendations.

Technology is elevating the client’s expectations of the practitioner, increasing expectations for faster and more efficient service. Some respondents noted that incomplete media coverage of technology also plays a role in raising expectations, even more than the technology itself. The concept of time, and faster, quicker service, was a common and reoccurring theme among comments by respondents.

QUESTION 5: SHOULD THE INFLUENCE OF CLIENTELE/CUSTOMERS BE INCREASED IN REGULATING YOUR PROFESSION?

No clear consensus on whether the influence of the clientele/consumers should be increased in regulation professions.



Faster Face Professional Development
Knowledge Continuous Learning Focus
Technology Occur Practice Evolving

Very Much

- “Two way communication is always the most effective in establishing best practice.” - Lawyer
- “Client/public feedback is important. The profession includes a social contract/license to act in the interest of the public.” — Engineer
- “Yes, it will keep the level of quality up, by forcing practitioners to be certified.” - Accountant

Not at all

- “Clients demands grossly exceed available resources.” — Realtor
- “Professional regulations are established to maintain professional standards of performance on behalf of society, not the clients.” — Engineer
- “Technical independence is a staple of the service we are able to provide. I believe that the influence of the clientele could compromise this independence.” — Management Consultant

CONCLUSION

The study was conducted to assess Alberta professionals views of the impact of increasing competition and client expectations on their practices and regulation of the professions in Alberta. As per Susskind, professions have been known as the gatekeepers of knowledge and expertise, warranting their professional designation and exclusive rights of practice.

The rise of emerging technologies and open access to information are increasing competition within and between professions. As well, practitioners are faced with changing client expectations and increasing demands on the practitioner’s relational skills, as formerly less demanding clients become more informed and more demanding consumers.

Respondents identified that their clients want increasingly faster and quicker service than before and that professionals are no longer the only one with expert knowledge. While practitioners engage in continuous learning in order to stay competitive in their fields, regulators must ensure that they understand the role of market forces in their professions. Regulators must know both the role of market forces, but also understand its influence on practitioner’s practices. Therefore, they must ensure there is ongoing education and discipline in their practice and that the professionals are doing what they are authorized as professionals to do.