

Improving student privacy and reducing risk using finance sector practices

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About the college

- Two-year community college in **Calgary, Alberta** with six regional campuses in southern Alberta
- 17,000 amazing students
- Very large proportion of immigrant and international students

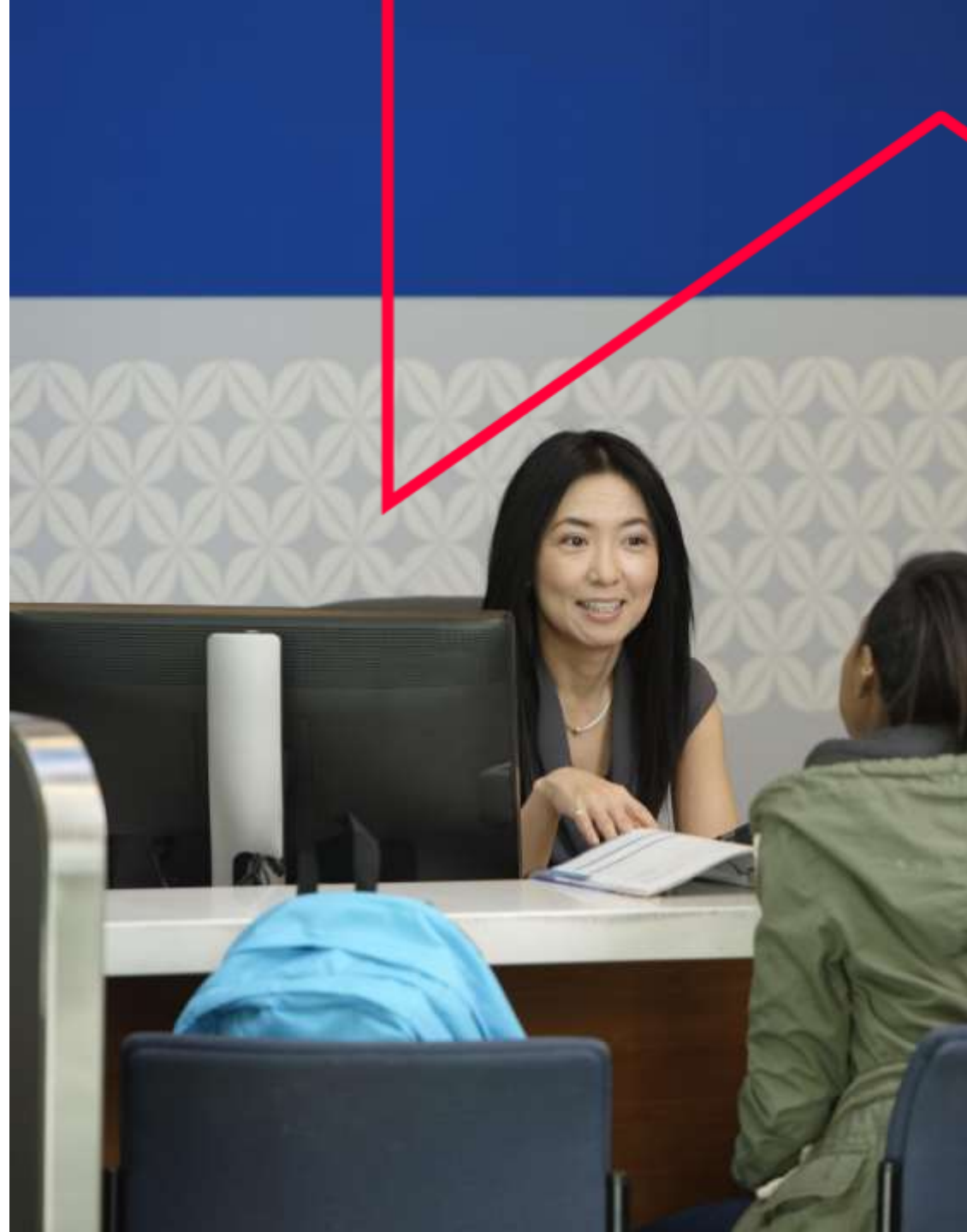
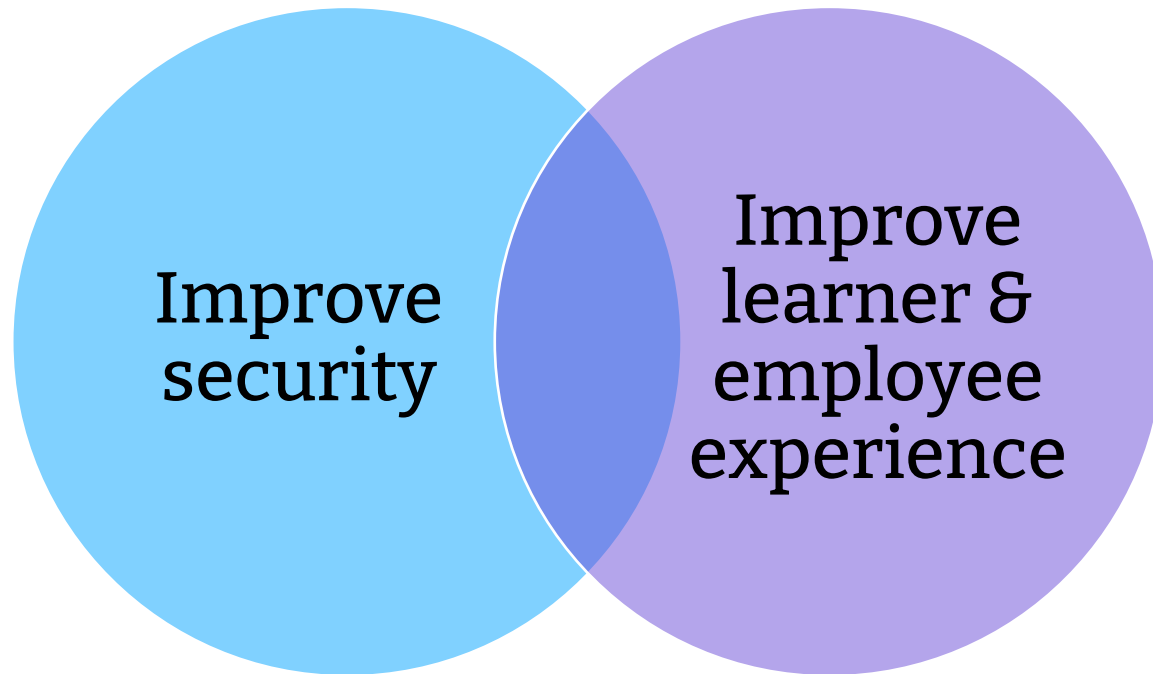


The situation

- 100% reliance on student contact centre (phone/email) during public health crisis
- Past history of unauthorized parties impersonating our learners
- No standard rules for validation, up to individual agents

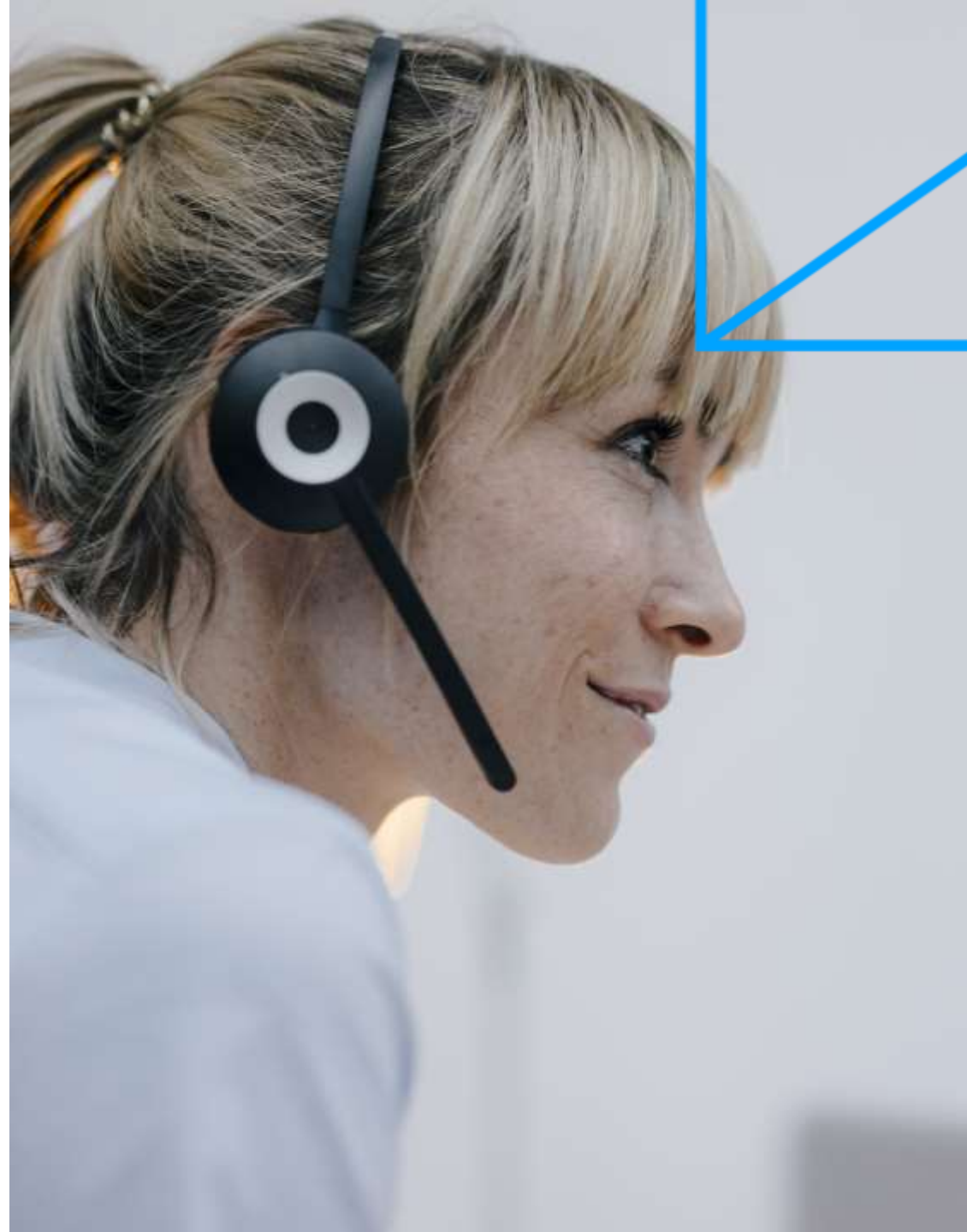


The goals



Guiding principles

1. Minimize risk
2. Increase efficiency
3. Humanize
4. Discourage further attempts
5. Improve employee workflow



Our systems

Student
system

Unit4 EMS

Phones

**Intermedia Call Centre
with Microsoft Teams**
Telephony on cloud-based
VOIP service

Email

**Outlook Win10 desktop
client on Microsoft 365**



What's the risk?

Why data privacy matters to front-line operations

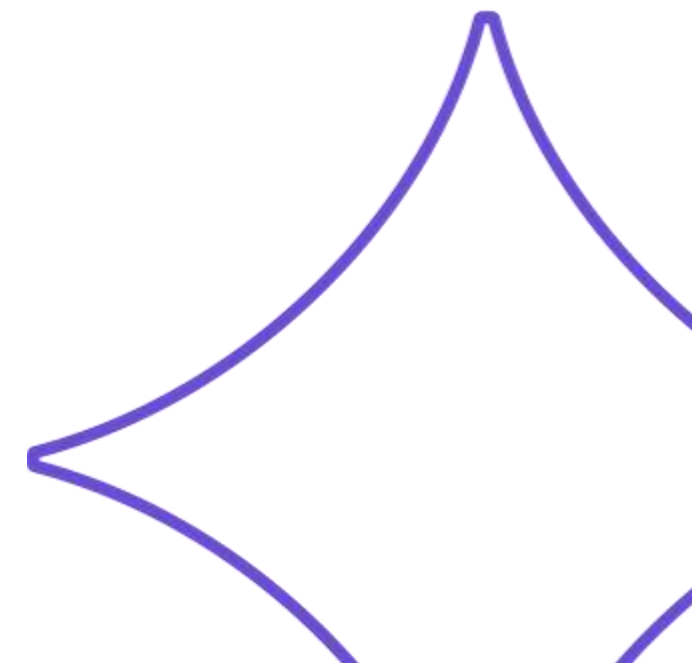


What's the risk?

The average cost of a data breach in 2021 was **\$5.40M** (\$4.24M USD)

Tunggal A.T.: What is the cost of a data breach in 2022? UpGuard, 12/5/2022

- Lost revenue
- Wasted staff time
- Reputational damage
- Operational shutdowns



Top sources of risk

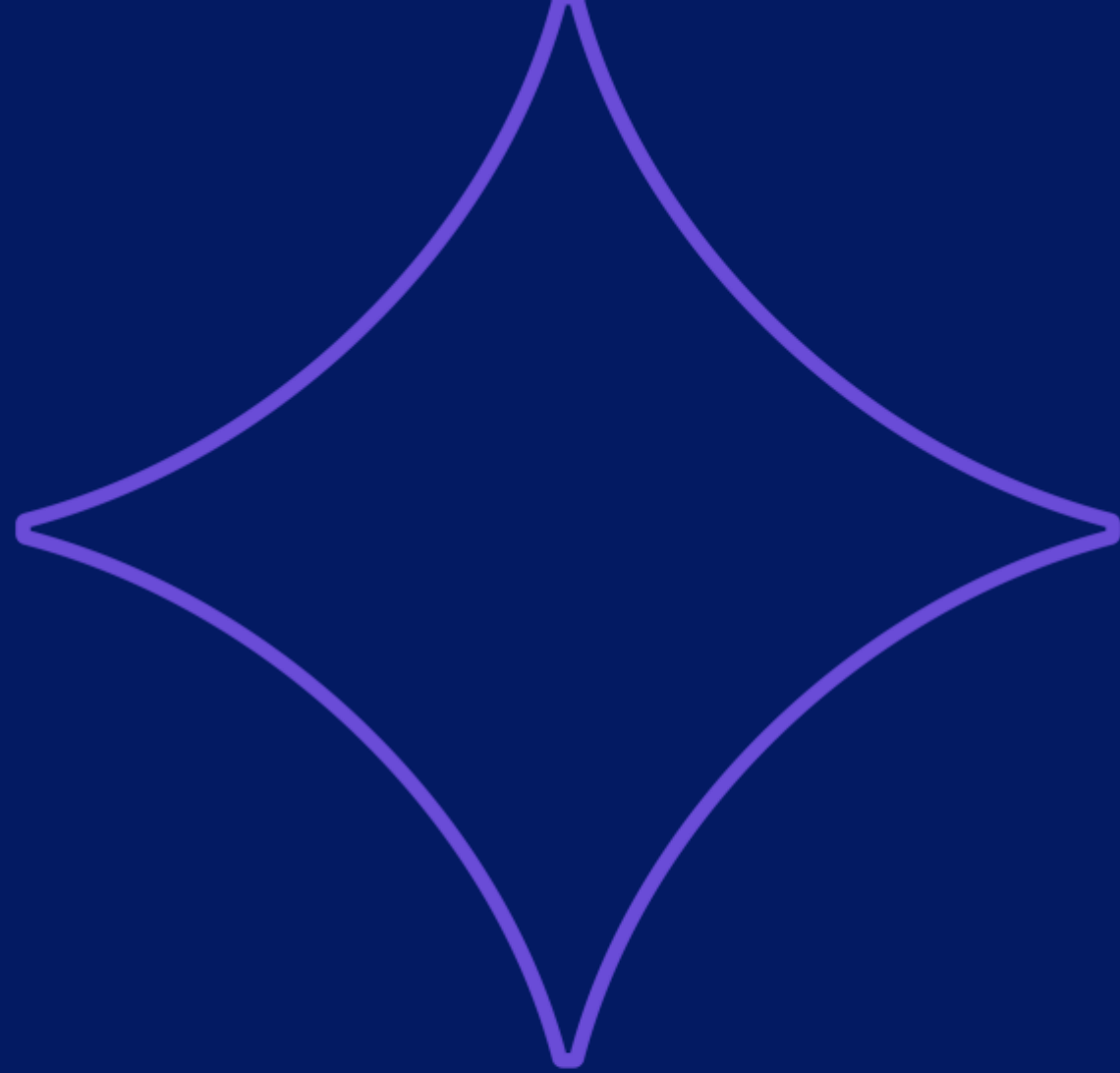
- Compromised email
- Phishing
- Malicious insiders
- Social engineering
- Software vulnerabilities

IBM Security: Cost of a data breach report. 6/2021

Best practices in IT security

- Data is a toxic asset
- Exchange only the data you need
- Be vigilant of social engineering
- Involve everyone

**So here's
what we did...**



There are a lot of options

Email address

IVR password

Mother's
maiden name

Date of birth

Voice
authentication

Verbal
password

Social
Insurance
Number 

Your name

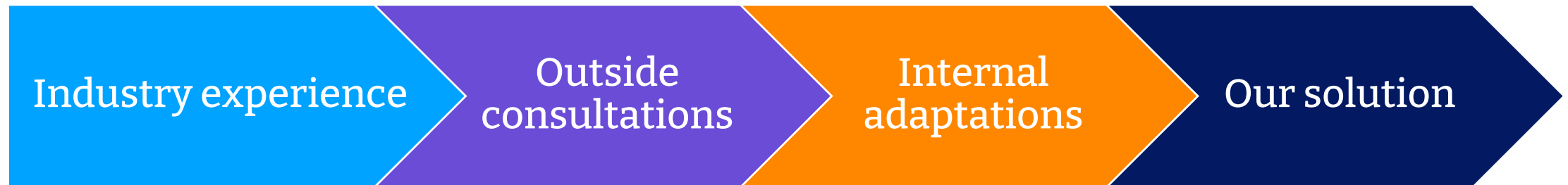
Mailing
address

Number from
government ID

Phone number

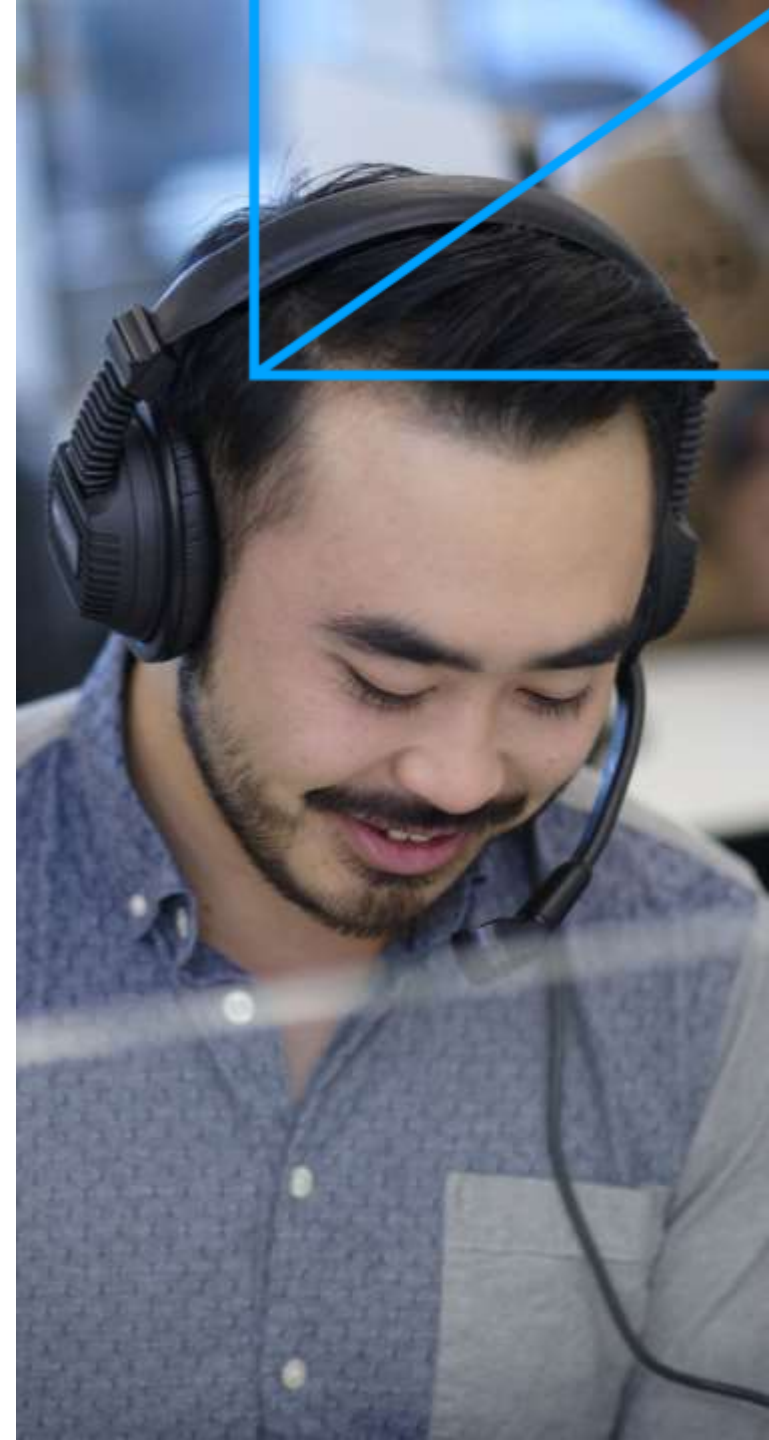
Customer
number

Information we used



Call centre

- Conversational experience
- Gets us info we need to expedite the call
- Call control – avoiding social engineering



Call centre

Caller ID	Used to search the student file while we're still greeting them.
Name	Validation tool, helps with pronunciation and preferred name.
Dynamic primary factor	Unique identifier like their college or provincial student number.
Dynamic secondary factors	Current courses, current instructor, recent tuition payment, recent grade.

Dynamic factors are changed on every call to reduce prediction and patterns.

Email

- Look up student file by **sender address**.
- Staff also check for sender spoofing.
- No match - no accessing the file.



Authorized third parties

- Who? International agents, spouses, parents, family members.
- Limited authority and validity.
- Use same validation factors as other email or phone inquiries.



Limitations

- Systems aren't integrated.
- Don't use automatic voice authentication.
- No verbal password system.
- Working through parallel TTY plan for Deaf students.



**What were the
business results?**



Business results

Faster
student
validation

More human
interactions
with students

Virtually
eliminated
privacy
incidents

Catch more
false access
attempts

Better staff
knowledge of
cybersecurity

Thank you!

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