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How Can XBRL be Used to Identify Early Adopters of New Accounting Standards?

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Introduction and Motivation

- Companies early-adopting new accounting standards is of great interest
- Problem – time-consuming and not scalable
- Research Question/Business Problem: Who has early-adopted Topic 606 Revenues from Contracts with Customers?
- Solution:
 - Leverage XBRL textBlocks to parse through text
 - Use machine learning to auto-detect ‘early adopter’
 - Validate machine learning model against results

Background

- FASB and IASB issued global, industry-agnostics revenue recognition standard (ASU 2014-09 (Topic 606), IFRS 15)
- Five steps
 - Step 1 - Identify contract with customer
 - Step 2 - Identify the performance obligation in the contract
 - Step 3 - Determine the transaction price
 - Step 4 - Allocate transaction price to performance obligation
 - Step 5 - Recognize revenue when company satisfies performance obligation

Research Method

- Sample – SEC filers with filings (2017Q2) (n=5450)
- Query on accounting policies textBlocks:
 - us-gaap_OrganizationConsolidationAndPresentationOfFinancialStatementsDisclosureTextBlock
 - us-gaap_SignificantAccountingPoliciesTextBlock
 - us-gaap_NewAccountingPronouncementsPolicyPolicyTextBlock
- Search parameters:
 - “Topic 606”
 - “ASU 2014-09”
 - “Revenue from Contracts with Customers”
 - “adopted” and variations
- Supervised and unsupervised machine learning model

Initial Findings

- 32 companies that early adopted Topic 606
- Nearly half of the sample of early adopters are pre-revenue or have minimal revenues

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- Industry

Business Services: **21.875%** (7/32)

Chemical and Allied: **37.5%** (12/32)

Instruments and Related Products: **12.5%** (4/32)

Electronic & Other Electric Equipment: **6.25%** (2/32)

Transportation Equipment: **6.25%** (2/32)

Other Use Cases for Research (live demo)

- GAAP and Non-GAAP – traceability back to the source
- Ability to drill in to footnote details
- Summary: Leverage XBRL data and technology to increase efficiency and effectiveness for research