

A. Classical LDA for Text

Document 1

Filed the day after the **FCC** issued its landmark Open **Internet** Order, the **lawsuit** challenges the **FCC**'s power to classify **internet providers** as common **carriers** under Title II. "These rules will undermine future **investment** by large and small **broadband providers**, to the detriment of **consumers**," The National **Cable** and **Telecommunications** Association argued in a brief in support of the **lawsuit**. "[The order] willfully ignores the hundreds of **billions** of **dollars invested** in reliance on the prior **policy**."

Document contains

Business topic
Internet topic

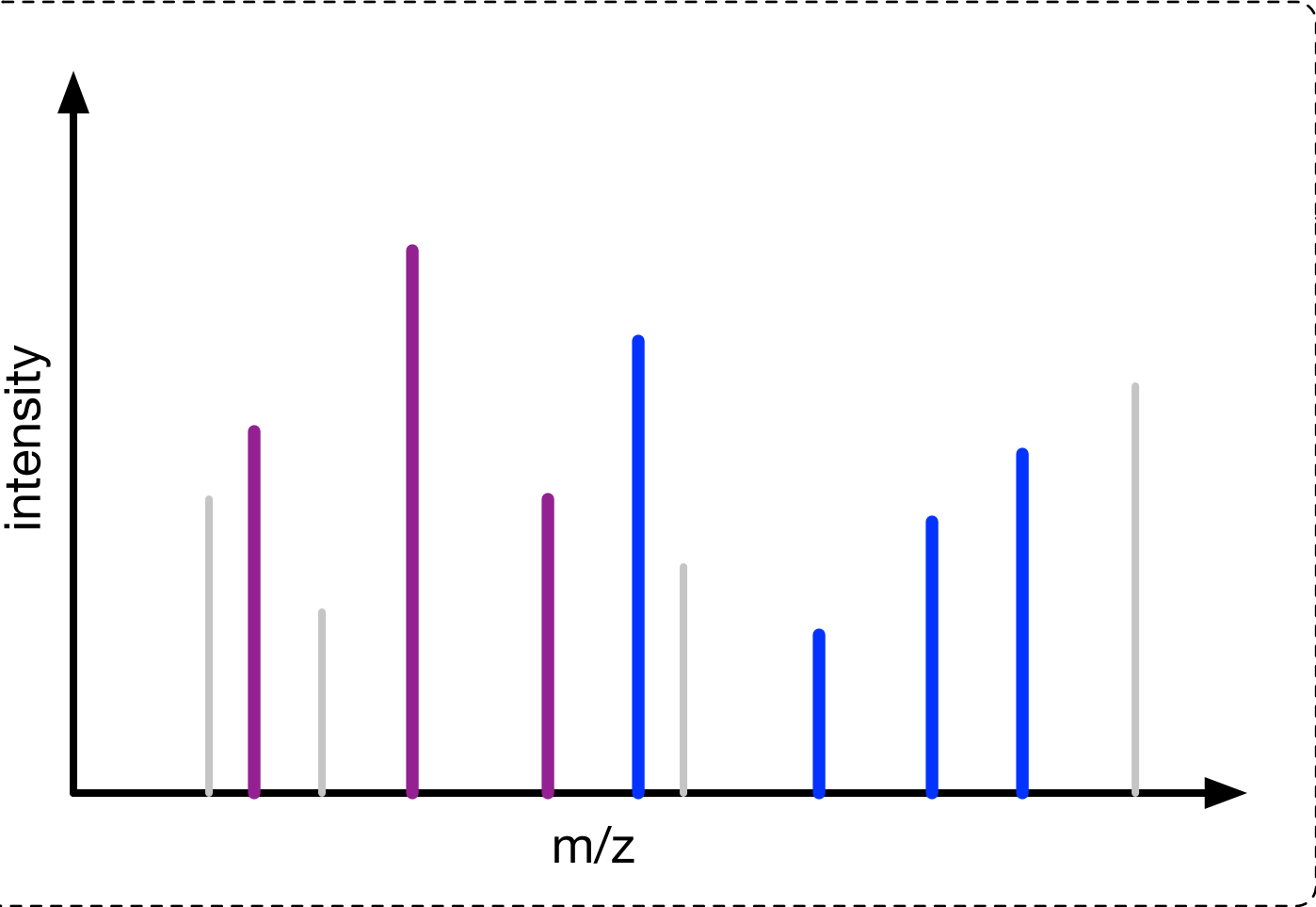
Business topic
Mobile topic

Document 2

Sony's **smartphone business** is in dire need of a reboot — something to jumpstart the **company**'s **mobile** ambitions after years of being ignored by US carriers. **Competitors** like **Samsung** and **Huawei** are producing the very best **devices** they've ever made while **Sony** has been dealing with having its **phone** outright cancelled. The refrain is getting tired, and success still eludes, which brings us to the **Xperia X**. This is **Sony**'s latest try at that resurgence, this time marked by the **company** taking its US **ventures** a little more seriously, **launching** both here and in Europe simultaneously.

B. MS2LDA for Fragmentation Spectra

Fragmentation spectra 1

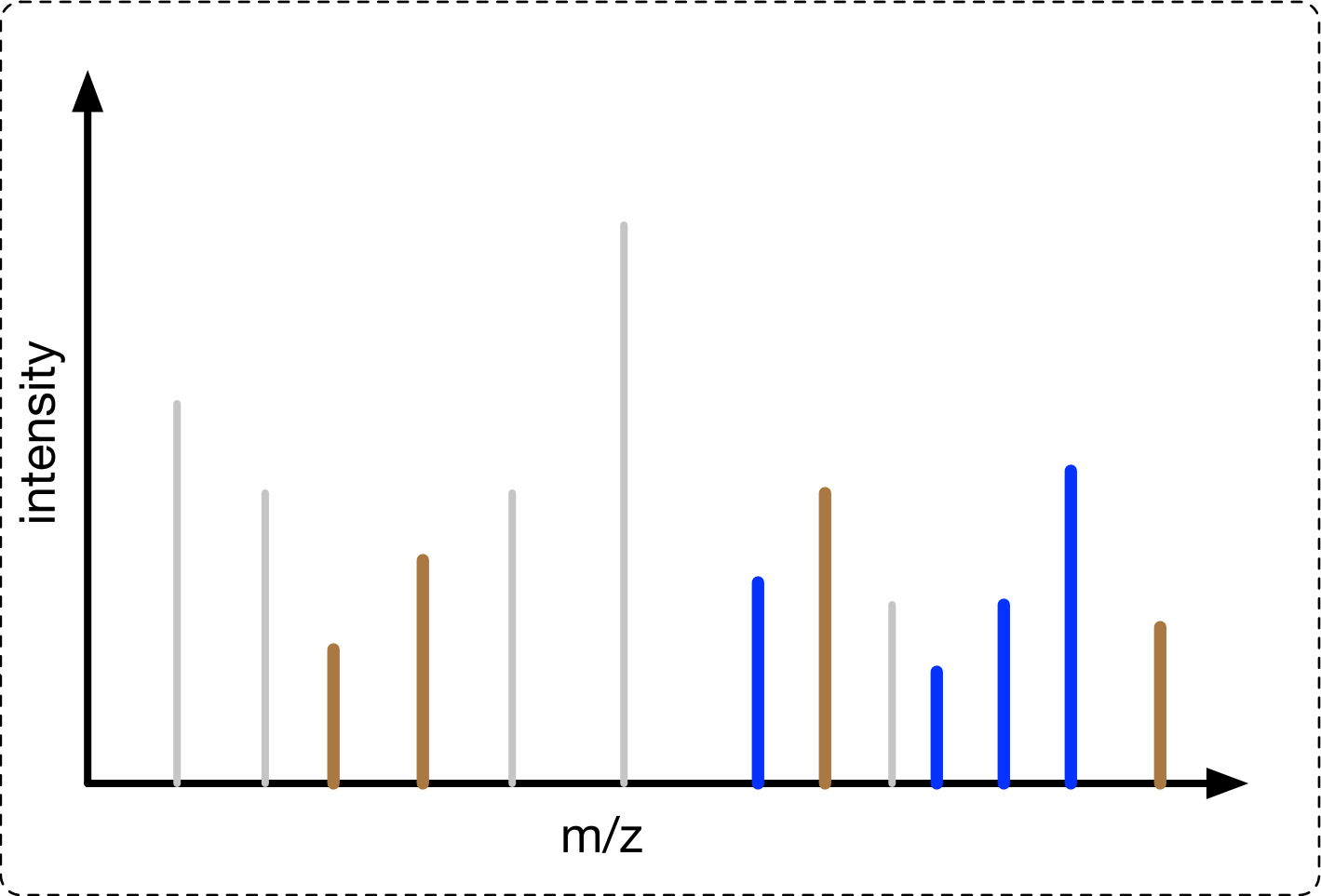


Spectra contains

Hexose
Mass2Motif
Asparagine
Mass2Motif

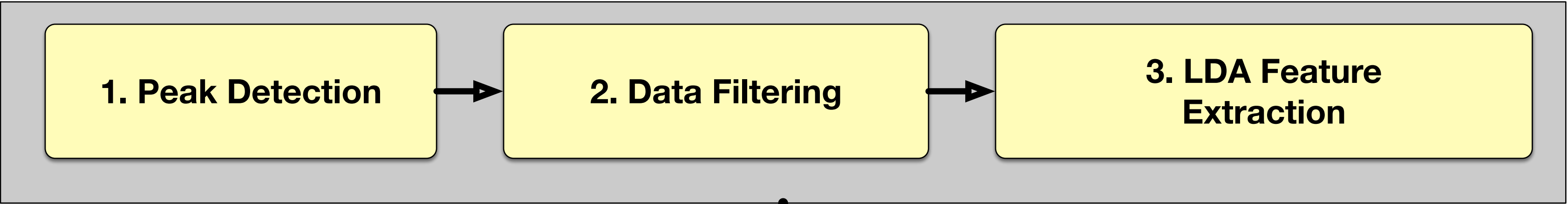
Hexose
Mass2Motif
Adenine
Mass2Motif

Fragmentation spectra 2



C. MS2LDA Workflow

i. Data Conversion



ii. Mass2Motif Discovery

