1. Background

Software testing content resides in many places on the internet and is hard to find.

Aggregators simplify the news discovery process for readers

Programming-related news aggregators have been found to provide relevant content [2].

Goal: Produce a data set & conclusions about software testing knowledge on the internet by using newsletters.

Will help to provide an understanding of what software testing knowledge is present in newsletters.

2. Research Q's

RQ1: What platforms, languages, and test types are discussed in newsletters?

RQ2: What common problems related to software testing are discussed in newsletters?

RQ3: What software testing tools, techniques, and strategies are discussed in newsletters?

RQ4: What types of software testing resources are shared in newsletters?

3. Methodology

Use 4 issues from 5 software testing newsletters (240 resources from 20 editions)

Utilize grounded theory / axial coding to annotate articles and find common techniques, problems, technologies, test types, platforms, and languages

Create a dataset containing resources and their details (date, section, etc)

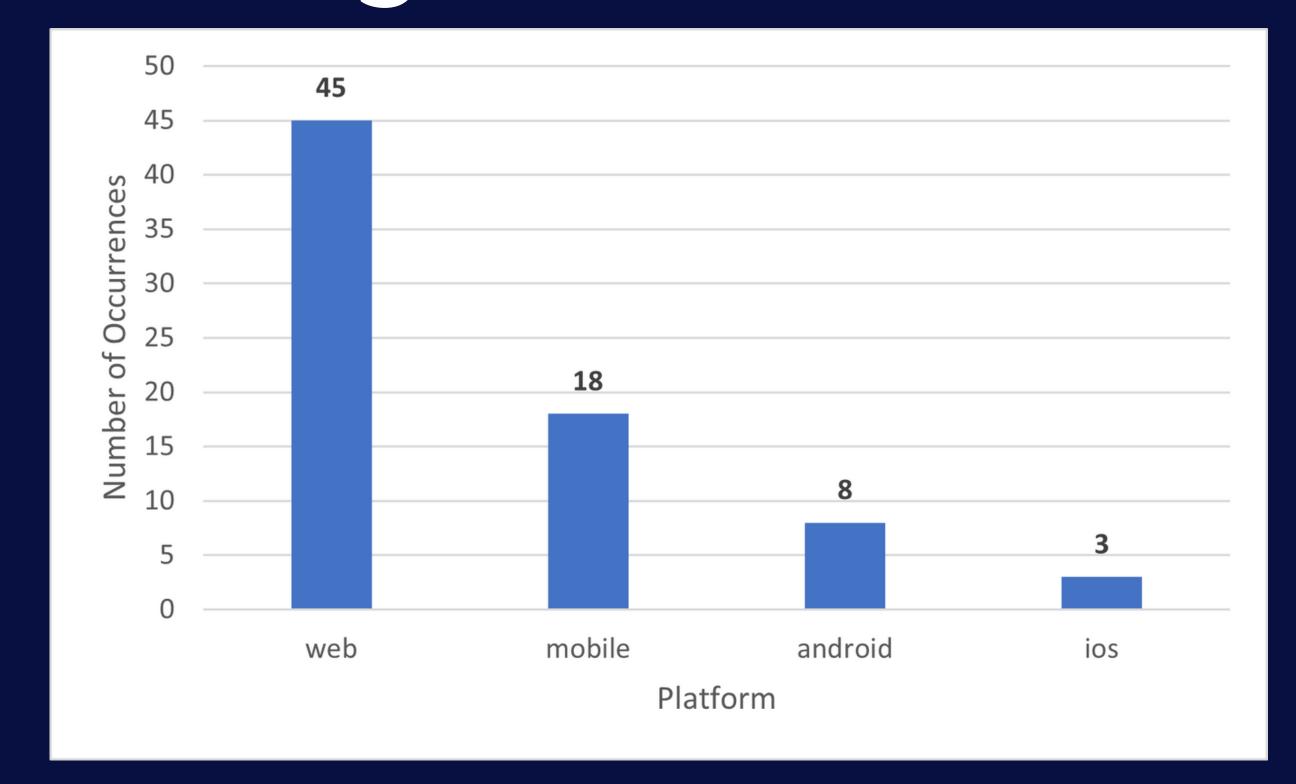
Further augment the dataset with newsletter and duplicate article information

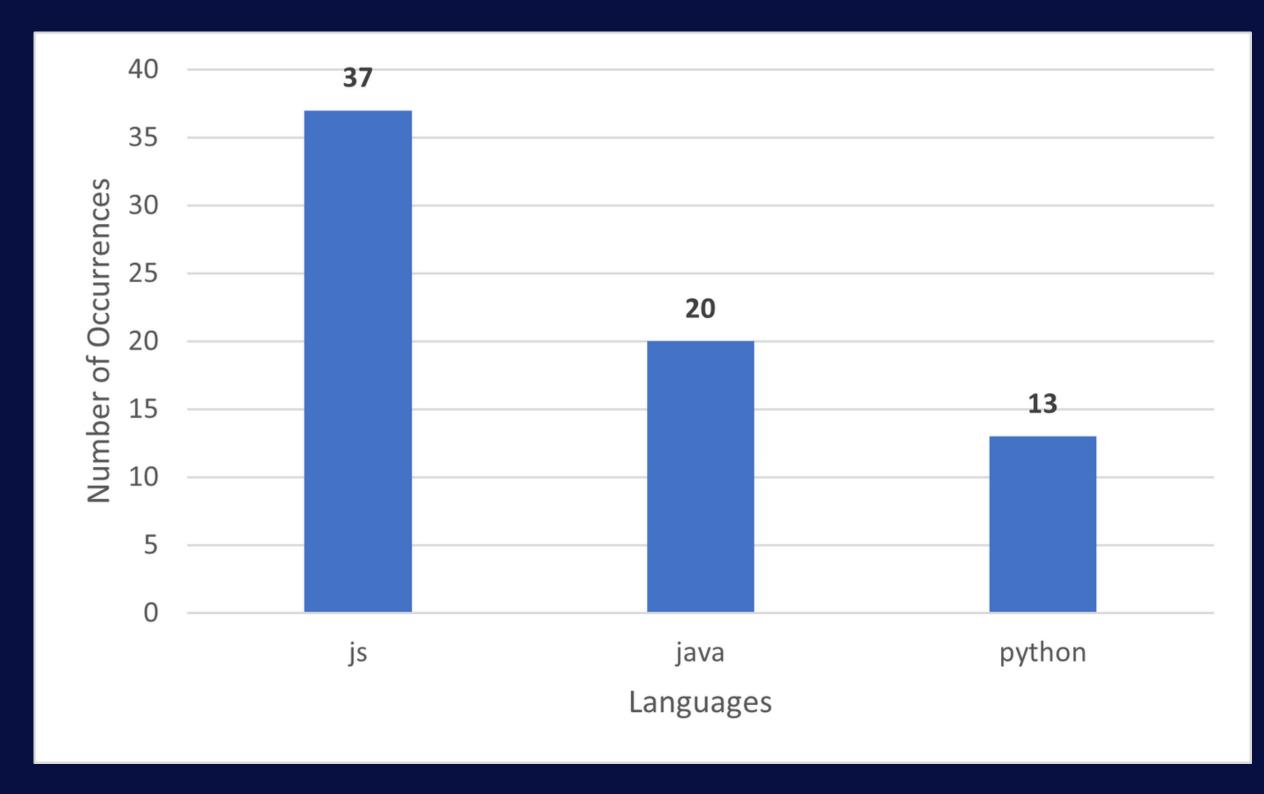
4. Conclusions

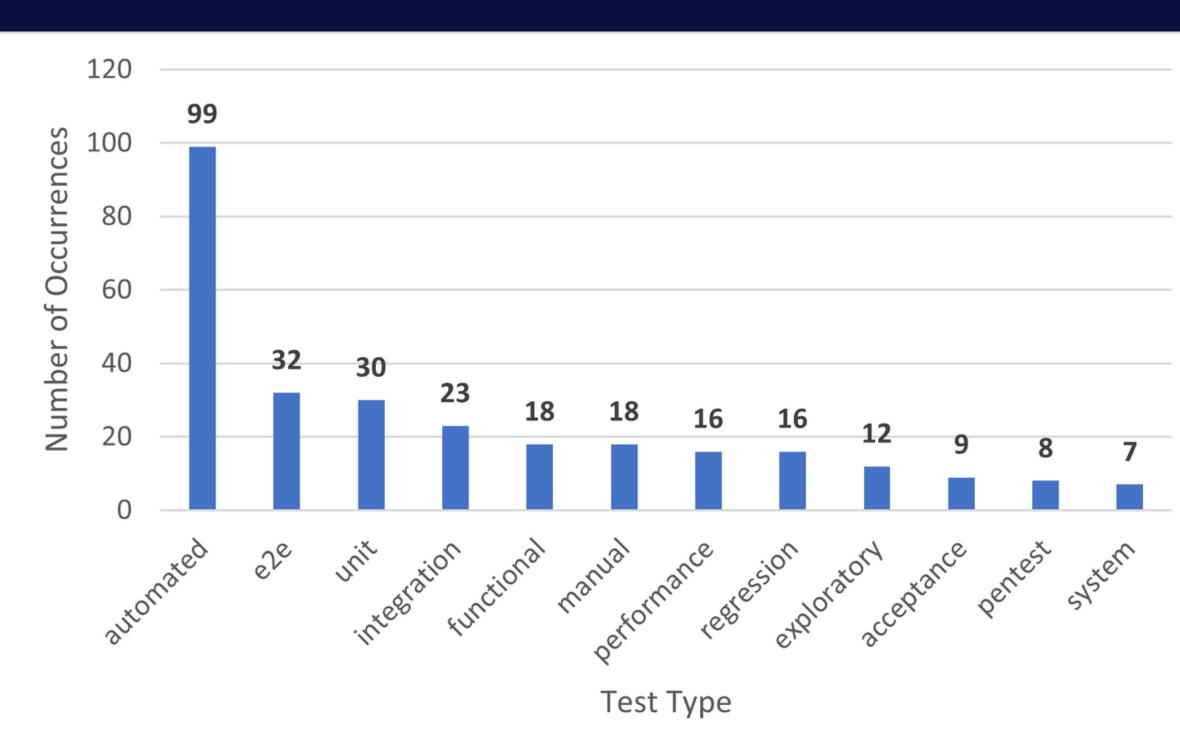
- that discuss JS/TS are most commonly discussed
- RQ2: Properly maintaining tests, fixing flaky tests, and properly analyzing test results are the most common problems
- frameworks (Selenium, Cypress, Playwright) and the Gherkin syntax are some of the most popular
- RQ4: Subjective articles

- RQ1: Automated web tests
- RQ3: Web test automation tools/techniques/strategies
- are most common, followed by articles that introduce a technology

Using Newsletters to Analyze Curated Software Testing Content

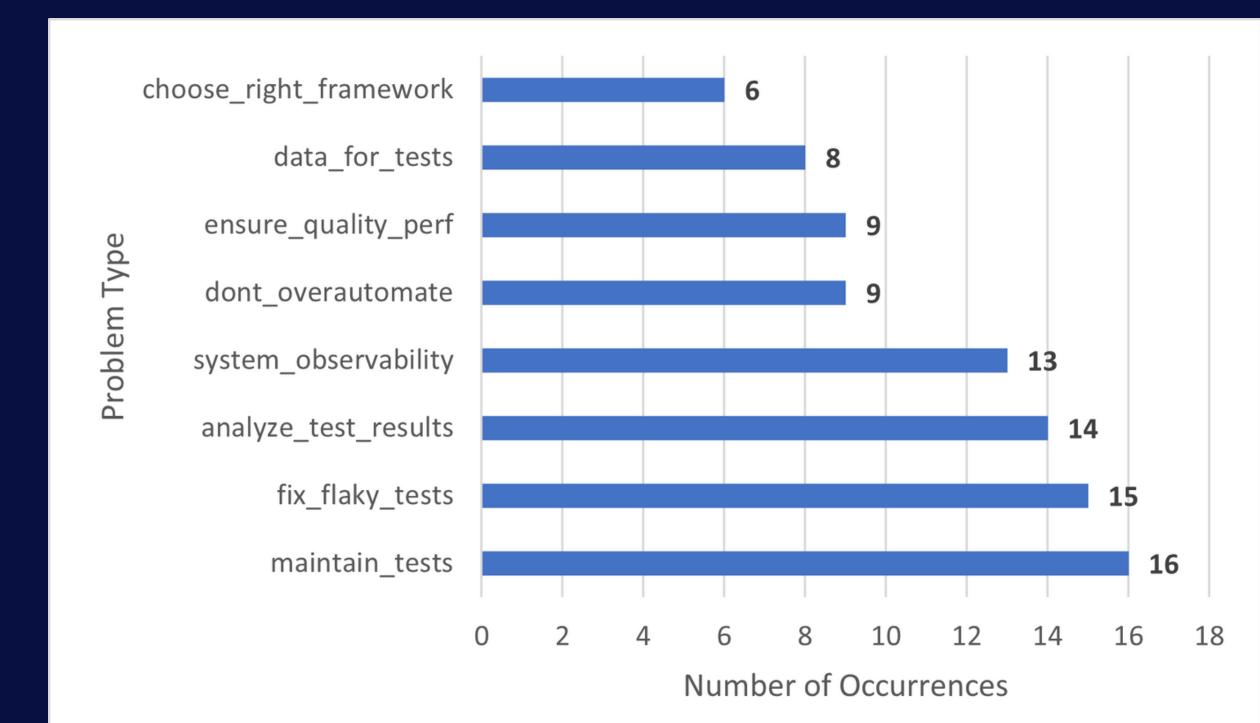


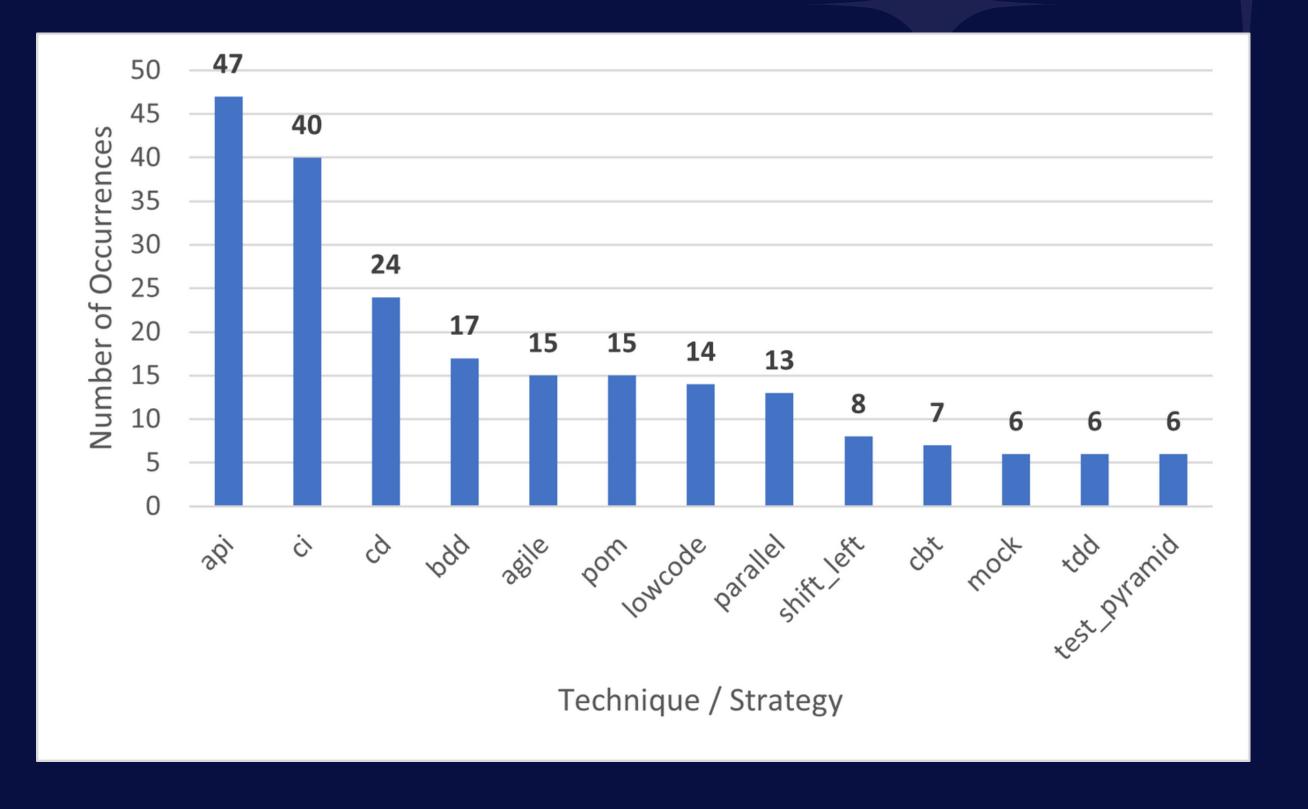


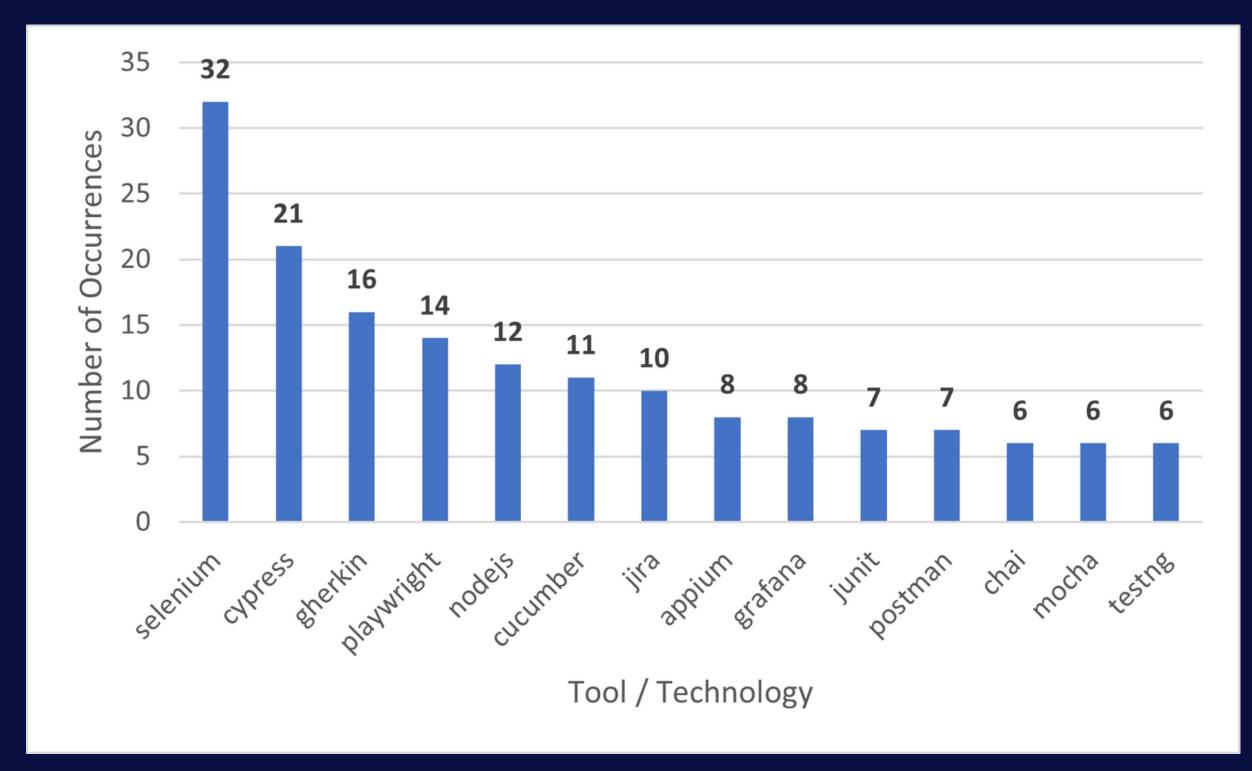


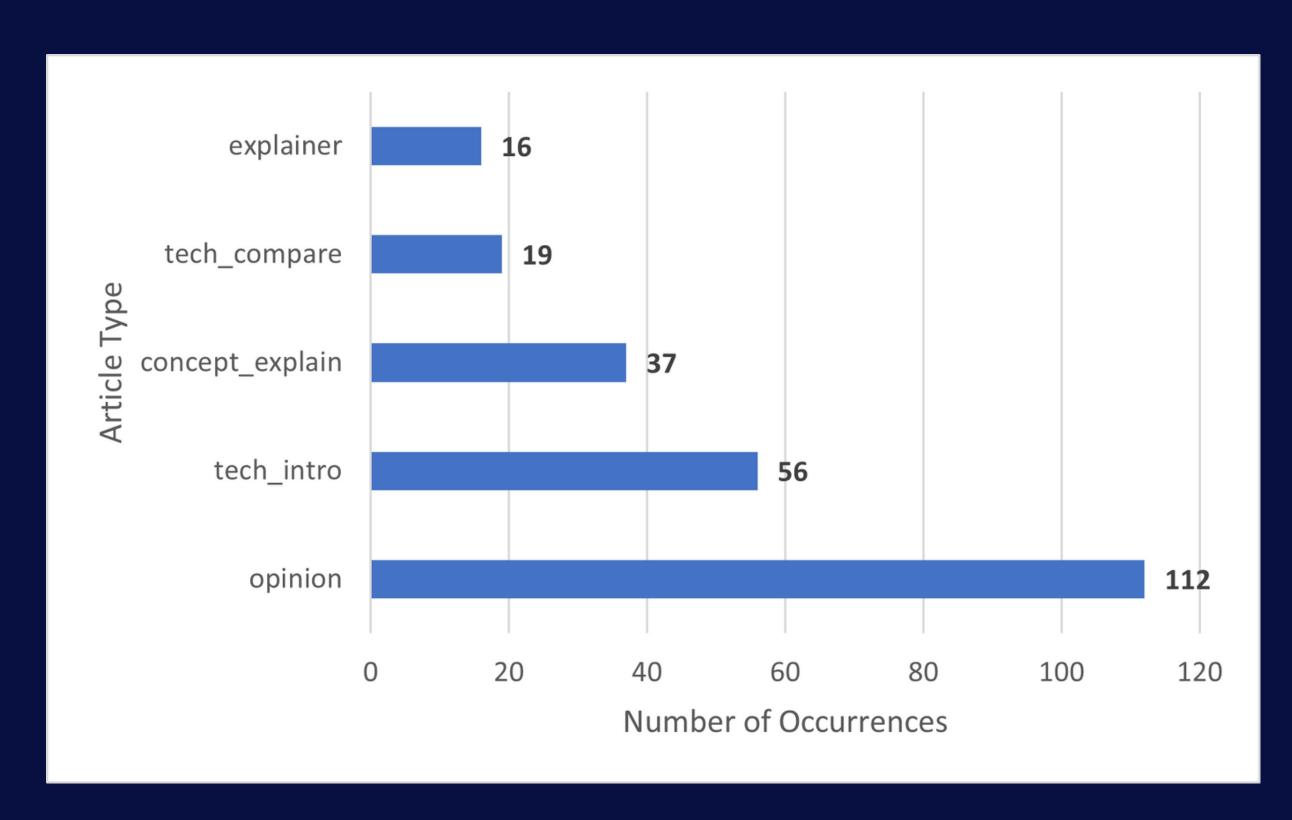
5. Limits & Future Work

- Limitation: Tagging resources using grounded theory is subjective (unless validated by another person)
- Limitation: Resources can possibly be edited/removed from the internet, making the research harder to replicate
- Future: Analyze more newsletters
- Future: Use a more automated tagging approach to streamline analysis









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[1] S. Chowdhury and M. Landoni, "News aggregator services: user expectations and experience," Online Information Review, vol. 30, no. 2, pp. 100-115, 2006 [2] M. Aniche, C. Treude, I. Steinmacher, I. Wiese, G. Pinto, M.-A. Storey, and M. A. Gerosa, "How modern news aggregators help development communities shape and share knowledge," in *Proceedings of the 40th International Conference on Software* Engineering, ser. ICSE '18. New York, NY, USA: Association for Computing Machinery, 2018, p. 499-510. [Online]. Available: https://doi.org/10.1145/3180155.31801