DevOps is not a standalone concept or method, but often co-exists with other concepts or methodologies in software engineering (SE)(Httermann, 2012)(Bang, Chung, Choh, & Dupuis, 2013). They are based on different ideas but can be combined in practice and benefit from each other. For example, Agile, Continuous Delivery, Lean Thinking or Site Reliability Engineering (SRE) are commonly seen in either blogs or academic papers(Lwakatare, Kuvaja, & Oivo, 2016). They may have some overlaps, some differences, or they can benefit from each other, or they may confuse many practitioners. Therefore, it would benefit our understandings and practice on DevOps to put DevOps in the larger background and find the relationships with other software engineering aspects.

Agile method is widely adopt by software industry. Recently it is proved to have a close relationship with DevOps and a trend of adoption of DevOps by Agile Team(Lwakatare et al., 2016). On the other hand, it can reveal global trends in DevOps and SE from regional perspective(Hussain, Clear, & MacDonell, 2017). Therefore, my research problems would be to discover the global trends in the combination of Agile and DevOps, and, furthermore, find out whether there are significant differences between different countries in the world.

• Research Question:

- RQ1: what is the global trends in combination or adoption of DevOps by Agile team
- RQ2: Is there any significant difference among different regions or cultures such as US, Australia & NZ, China? If yes, what are the differences?

• Research Method: Qualitative research

- Data collection: Collect post and comments from online forums or websites such as reddit, linkedin groups, stackexchange, hacker news, infoworld, etc. Materials in Chinese community can be found in zhihu.com, the largest Chinese QnA website.
- Data analysis: Codify the data collected in previous step, following the scheme used in (Bang et al., 2013) and (Hussain et al., 2017).
 Data from different regions can be codified separately, and then combined to form a unified view.
- Output: The expected output of this research is the answers to the two research question:
 - the global trends of combination or adoption of DevOps with Agile method
 - the difference in trends among different regions or cultures around the world.

References

Bang, S. K., Chung, S., Choh, Y., & Dupuis, M. (2013). A grounded theory analysis of modern web applications: Knowledge, skills, and abilities for DevOps. *Proceedings of the 2Nd annual conference on research in information technology*, 61–62. https://doi.org/10.1145/2512209.2512229

Httermann, M. (2012). DevOps for developers. Berkely, CA, USA: Apress.

Hussain, W., Clear, T., & MacDonell, S. (2017). Emerging trends for global devops: A New Zealand perspective. 2017 ieee 12th international conference on global software engineering (icgse), 21–30. https://doi.org/10.1109/ICGSE. 2017.16

Lwakatare, L. E., Kuvaja, P., & Oivo, M. (2016). Relationship of DevOps to agile, lean and continuous deployment. *Product-focused software process improvement*, 399–415. Cham: Springer International Publishing.