



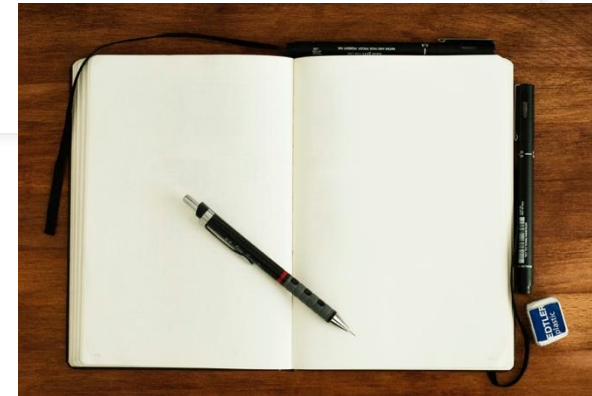
A Friendly Introduction to Software Documentation

Defining Documentation and Its Importance

By Arist Bravo

What is Documentation?

- Any item which conveys information about software
- 2 types: technical docs (for SWEs) and user manuals (for users)
- Our focus: technical docs
- EX of technical docs:



List of Specifications

```
div-left: 10px;  
div-right: 10px;  
weight: bold;  
flow: auto;  
  
'login' id="login_form" >  
  <div color='red'><b>Authentication Failed</b></div>  
  <div class="dError1">Please contact the admin</div>  
  
<saml-auth-status>-1</saml-auth-status>  
  
onclick="window.top.location='/php/login.php';return
```

Source Code

```
// Output the tickets  
System.out.println(ticket_string);
```

Comments and
READMEs

Flight
flightNumber : Integer departureTime : Date flightDuration : Minutes
delayFlight (numberOfMinutes : int) : Date getArrivalTime () : Date

Diagrams and Code for Classes

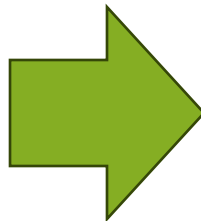
Why is Documentation Important?

- Researchers found:
- Documentation gives key info about the projects you code
- OOP developers look at source code, comments, classes, etc. for help as they program
- 61.5% of surveyed developers saw documentation as moderately important (Plösch et al.)

Flight

```
flightNumber : Integer  
departureTime : Date  
flightDuration : Minutes
```

```
delayFlight ( numberOfMinutes : int ) : Date  
getArrivalTime ( ) : Date
```



An Anecdote to Explain...

- When I was in CSC207, I had to help my team members figure out a bug in their code
- I was unfamiliar with their code... and their code had poor comments... the result?



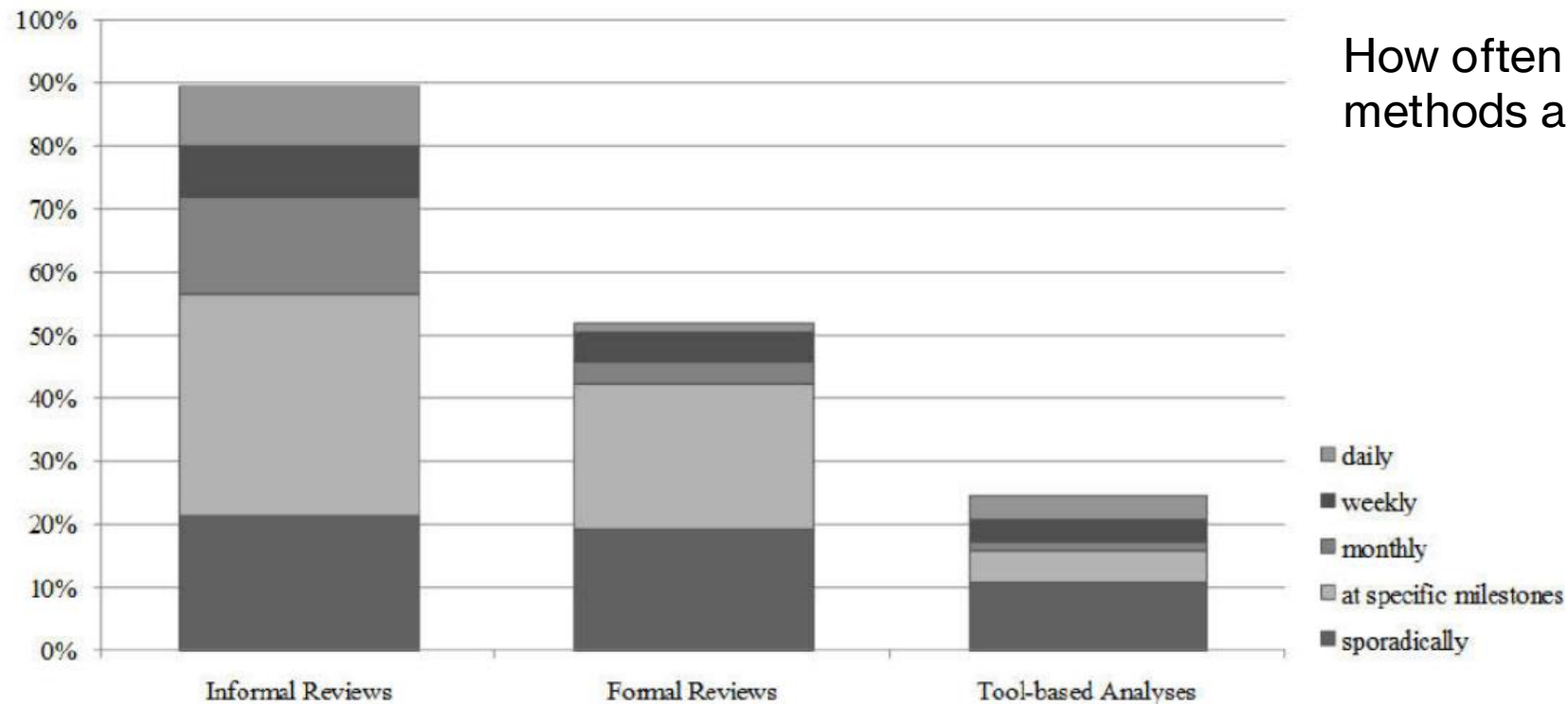
"But Our CSC Projects Are Small!"

- What about big software projects in the real world?
- Many people come and go – are unfamiliar with code
- You can't just "read everything" to understand the project (too much)
- Documentation helps here; invest in your future!



Docs in Industry: Informally Reviewed

- "Formal review": any (human-conducted) review which uses a set of rules
- Otherwise: the (human-conducted) review is "informal"
- Both are time-consuming; there's a need for faster, automated tools



A Way Forward

- For the time being: practice "good documentation" as humans
- We need documentation skills transferable across different languages
- Solution: study general theories and frameworks

