A Billion Phones and Even More People

Optimizing the web for the next billion

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Why do we need performance?

Fast applications = Happy users

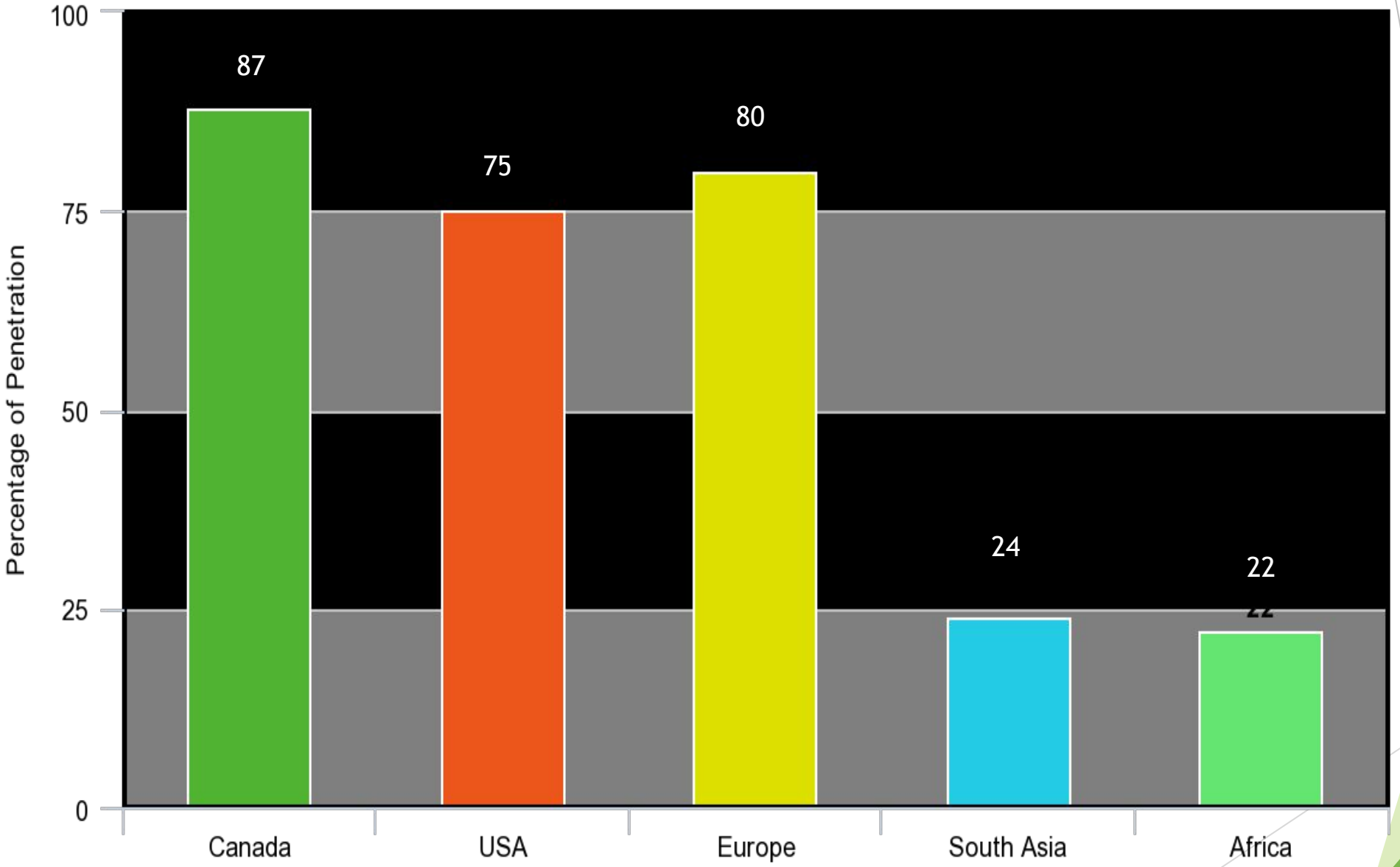
Where do users come from?

China - 1400M

India - 1300M - (45%p) - 627M users

USA - 325M - (84%p) - 275M users

Data last collected in 2016



Source: World Bank

Why do we need this?

- Market saturation of technical products in the first world
- Larger number of users getting access to the internet
- Basically, access to larger number of people who use your services

Finding the right balance

Performance <-> Accessibility <-> User Experience

Story #1 - Internationalization

The easiest barrier

uber

G

Germany | Deutsch

Greece | ελληνικά

Ghana | English

Guatemala | Español

H

Hong Kong | 香港中文版

Hungary | Magyar

I

India | हिन्दी

Israel | עברית | Русский

Ireland | English

Italy | Italiano

J

Japan | 日本語 | 简体中文

Jordan | العربية

K

Kenya | English

Korea, Republic of (South Korea) | 한국어 | 简体中文

L

Lebanon | العربية

Lithuania | Lietuvių | Русский

Case #1 – Uber

- Imagine a user in India/ Ghana/ Kenya/ Nigeria for Uber who is NOT a native English speaker

- Enabling native languages improves access to users from diverse regions

Improving internationalization

- Use HTML lang code -
  <html lang="en-**US**"> ... </html>

- Use universal icons/ images/ sounds (non-written/ language agnostic communications)

https://assets.kpmg/content/dam/kpmg/in/pdf/2018/05/IndiaTrends2018-Trends-shaping-Digital-India-Internet.pdf

Story #2 - Handling real world devices

Going beyond the iPhone

A family of mobile devices

grandpa **mom** **dad**

Hardware is created UNEQUAL

- Can your website handle the sizes and shapes?
- Cracked screens, cramped spaces – places where your CSS quick fixes come to die

Mobiles with less than 2GB RAM

vs.

your website built with the latest & coolest JS frameworks

=

LOADING.GIF

(for a long time)

Story #3 – Oh no, the Wi-fi!

Handling a narrow bandwidth

WiFi in India - A closer look

- Wifi definition - 10 Mbps to 300 Mbps
- Actual average connection speed - 3.465 Mbps

Source :
https://www.webworldwide.io/country/india

How does your website perform in 3G, 2G, H+, ...

If loading > 2s, user interest plummets

Test your website on CRAPPy phones with SLOW speeds!!

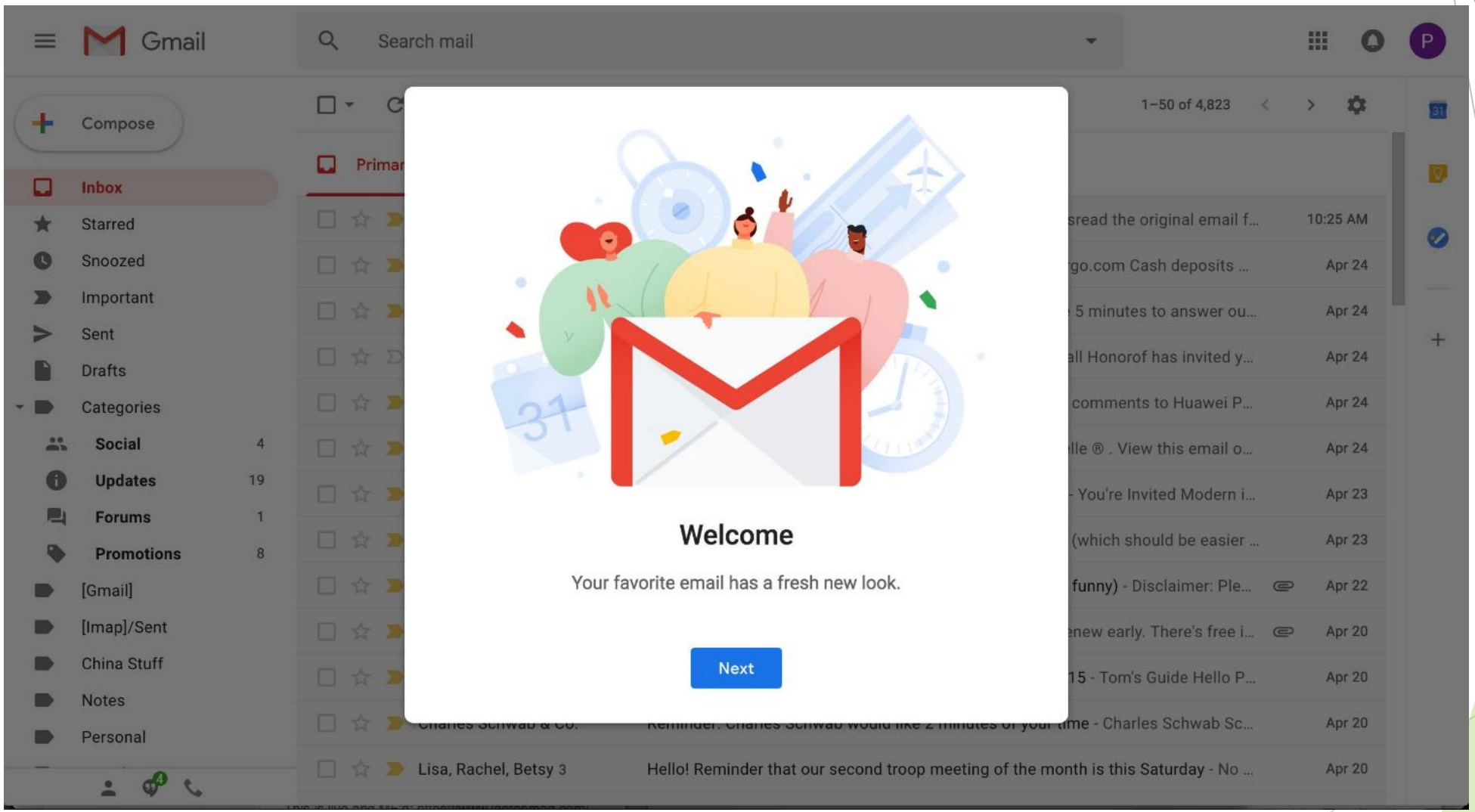
Have a fall back for bad specs

How can I simplify my website?

- Min. number of downloads on first click
- Pre-loading parts of the websites
- Optimizing video usage
- Use svg(s) - get Drasnered today!

Bonus point for UX!

Adding a little extra for your users


Gmail
Search mail
Compose
Inbox
Starred
Snoozed
Important
Sent
Drafts
Categories
Social 4
Updates 19
Forums 1
Promotions 8
[Gmail]
[Imap]/Sent
China Stuff
Notes
Personal
1–50 of 4,823
Welcome
Your favorite email has a fresh new look.
Next
Lisa, Rachel, Betsy 3
Hello! Reminder that our second troop meeting of the month is this Saturday - No ...
Apr 20

Create a demo mode!

- Have a help setting that explains the major moving parts
- Use Arrows, icons and more to help users navigate your product

In summary ...

- Internationalization of your website
- Optimize for non standard aspect ratios
- Fall backs for slow internet

Q&A

Yes, 5 mins more to breaktime!

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Thank you!

That’s all I have today 😊