

Mobile Security

2023-2024

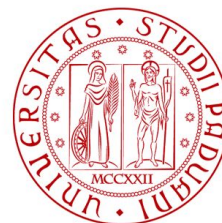
Dr. Eleonora Losiouk

Department of Mathematics

University of Padua

elosiouk@math.unipd.it

<https://www.math.unipd.it/~elosiouk/>



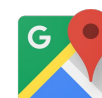
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DIPARTIMENTO
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The first smartphone: iPhone (2007)



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Then, more players



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Google's Android (2008)



Microsoft's Windows Phone (2010)

- Core aspect: mobile apps
- Mobile apps are the “why” people find smartphones useful
- Apps give developers ways to make their work available
- There must be incentives for developers as well

- Apple's iOS ecosystem is quite closed
 - iOS is closed source
 - iOS and iOS apps can only run on Apple devices
 - You can install apps only from the Apple Store
 - Tricky to “jailbreak” iOS devices
- How come are they still around?
 - They were the first --> significant chunk of market share
 - They make great products, and people know about it

- Android Inc. started developing Android in 2003
 - Google purchased them in 2005
- Google needed to catch up
 - The “Open Handset Alliance” (84 companies)
 - Ecosystem is much more open
 - Android / AOSP is open source
 - Android can run on many different devices, even non-Google ones
 - Easy to inspect Android apps / reverse them / modify them
 - Easy to install apps you develop (“side loading”)
 - Developers can do many more things
 - Quite easy to “jailbreak” Android devices

- Windows Phone launched in 2010
 - It primarily aimed at the enterprise market
- Phones were actually quite nice, but developers didn't believe it could make it...
- ...not many apps out there --> it eventually faded over

Android vs iOS recap



	Android	iOS
Open-source OS?		
Can OS run on non-Google/Apple device?		
Can you run custom OS?		
Can you sideload apps?		
Can you run custom/modified apps?		
Is it easy to tinker with apps?		
Easy access to emulator?		

Android vs iOS recap



	Android	iOS	Security problems?
Open-source OS?	Yes	No	
Can OS run on non-Google/Apple device?	Yes	No	
Can you run custom OS?	Yes	No	
Can you sideload apps?	Yes	No	
Can you run custom/modified apps?	Yes	No	
Is it easy to tinker with apps?	Yes	No	
Easy access to emulator?	Yes	No	

Android vs iOS recap



	Android	iOS	Security problems?
Open-source OS?	Yes	No	~
Can OS run on non-Google/Apple device?	Yes	No	Yes!
Can you run custom OS?	Yes	No	Yes!
Can you sideload apps?	Yes	No	Yes!
Can you run custom/modified apps?	Yes	No	Yes!
Is it easy to tinker with apps?	Yes	No	Yes!
Easy access to emulator?	Yes	No	Probably not