Title: The Challenge of Effective Communication within Software Development Teams Andrew Begel, Carnegie Mellon University

The practice of creating software involves much more than writing code. In fact, software engineering is primarily a human-centered discipline, in which effective communication is essential to coordinating work across large-scale, hierarchical teams. Yet, engineers with excellent soft skills are rare, and worse, the team-based communication practices required for effective software engineering are rarely taught to students. In this talk, I will discuss my observations of good and bad communication practices between software teams during my 16 years at Microsoft. I will illustrate how software development methodologies like Agile development impact inter-team communication and show how ineffective communication can hurt individuals, teams, and the products they create. My most recent research helping mixed neurotype (i.e. autistic and non-autistic) team members to more effectively work together reveals that explicit instruction and scaffolding of communication practices can help them to succeed and thrive.