Summarize opportunities for digital phenotyping in neurology, review studies using everyday technologies to obtain motor and cognitive information, and provide a perspective on how neurologists can embrace and accelerate progress in the emerging field.

Phenotype-set of observable traits. Digital phenotyping: Defined as characterization of an individual’s phenotype using everyday consumer devices such as general purpose smartphones, smart watches and personal computers.

Passive phenotyping: Collecting data in the background without asking the individual to perform specific activities.

Active phenotyping: Data from everyday devices are collected as individuals perform activities that constrain the context of the behavior in order to elicit specific and interpretable features of disease.

Digital phenotyping refers to active and passive characterization of an individual’s observable traits using widely available consumer technologies that do not require clinician-interaction. Sleep, seizures and vision are outside the scope of this review(digital phenotyping is related to quantitative and deep behavioral phenotyping).

**Three advantages:** Examine phenotype before any indication or risk of disease is known, Generate large and diverse datasets that may provide statistical power to discover common and rare phenotypic features and patterns and opportunity to provide low-cost yet powerful systems to the entire population.

Digital phenotyping offers the ability to expand upon the information obtained by a neurologist-administered examination. Areas of impact can be grouped into three categories: clinical care, therapeutics development, and clinical and translational research.

30-40 minutes per presentation

Advantages and disadvantages of active vs passive

Video might be an issue of privacy, but watches may not.

Passive phenotyping may result in more accurate data compared to active.

Cheap and accessible but personal device may be broken.

People’s frequency of typing may not be a valid method. Have a baseline of a person and go from there to judge the person(don’t use other people’s baseline).

Have a concrete case and argue about it. Generalities always make sense.

Accuracy of data may not be the best.

Clinical goals help us learn and observe and therapeutical goals are more interventionist.