Thursday introduction for CIMBI course

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Upscaling brain research

Why do brain research if the subjects can do it themselves through the Internet?

Why keep data in the laboratory and not make them available on the Internet?

Subjects are probably interested in being more than subjects: "Quantified self"

"Social fMRI": ubiquitous social observatories

Analyzing on the Internet

694 blogs analyzed with text mining, 100-item or 315-item IPIP open personality questionnaire taken by 576 participants (Yarkoni, 2010).

18 Facebook features (e.g., "Anxiety words", number of friends) and 5 personality dimensions (Golbeck et al., 2011).

myPersonality Facebook application with IPIP on 172'952 Facebook users (Quercia et al., 2012).

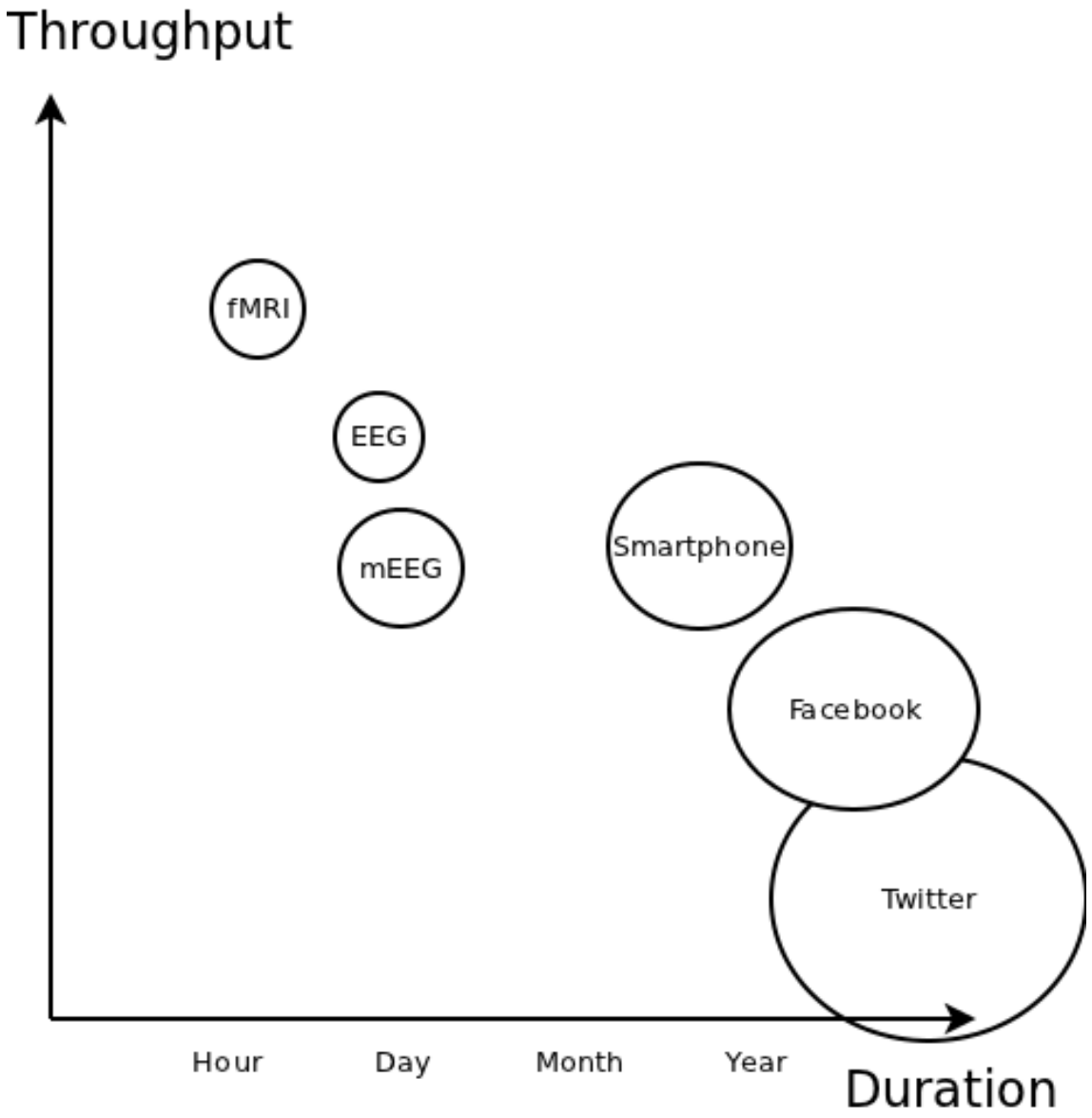
Personal EEG with 18 college students (Marshall et al., 2011)

Sensing smartphone: 25 different types of variables collected for 130 subjects in 12 months (Aharony et al., 2011)

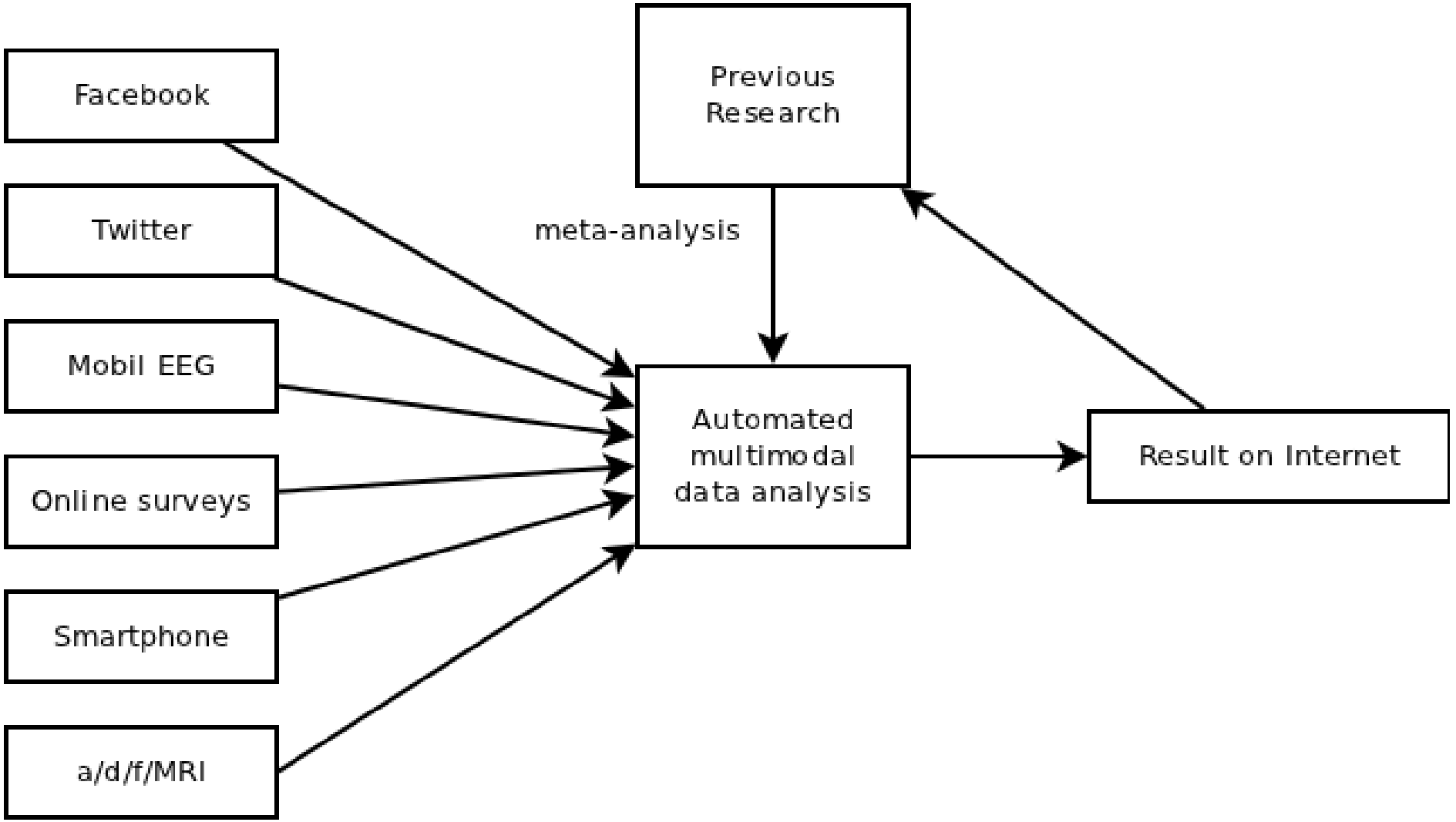
Modality for "social quantified self"

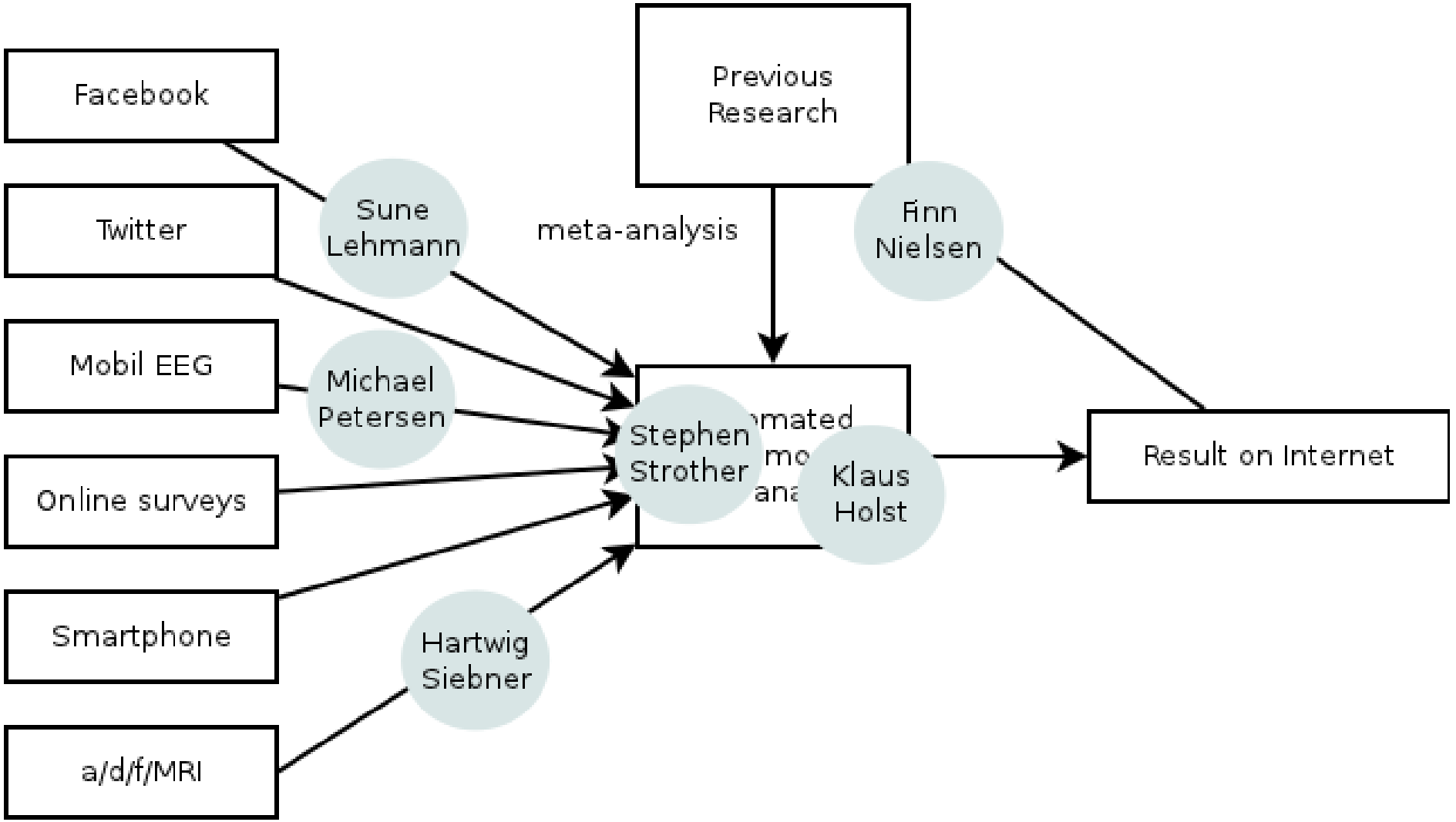
Modality	Subjects	Variables	Duration
fMRI	1	100'000	Hours
EEG	1	100+	Hours/day
Personal EEG	20	1–14	Night
Sensing smartphone	100+	100	Year
MyPersonality	100'000+	5+	—
Twitter studies	Millions	1–10s	Years

Table 1: Examples



Size indicate number of subjects in study. Inspired by (Aharony et al., 2011, Figure 1)


Facebook
Twitter
Mobil EEG
Online surveys
Smartphone
a/d/f/MRI
Previous Research
meta-analysis
Automated multimodal data analysis
Result on Internet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Sune Lehmann
Michael Petersen
Hartwig Siebner
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Stephen Strother
Klaus Holst
Finn Nielsen
Result on Internet

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