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# Food logging: a practice-based exploration of an information literacy landscape

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# Background

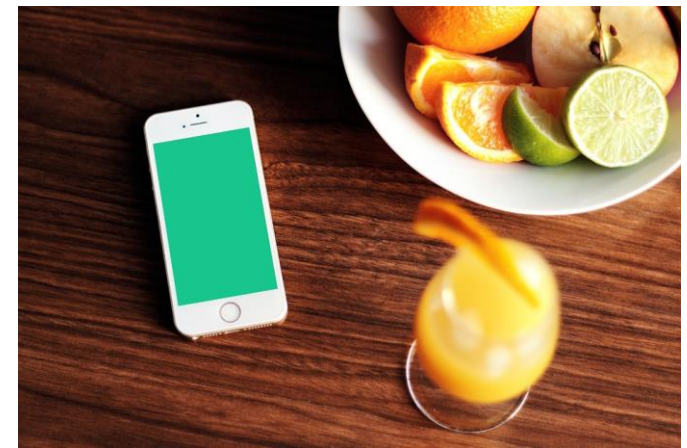


Diet and fitness and their effects on health and weight are major concerns for the 21<sup>st</sup> Century

Food diarying is known to be effective at supporting changes in diet

Mobile apps offer a more connected, discrete and versatile form of food diarying or “logging”

Mobile apps for food and activity logging are very popular e.g. MyFitnessPal has over 75 million registered users



# Previous research

- accuracy of recording food consumed using apps can be poor, and errors can be as high as 50%
- apps rely on large databases of foods, which contain unverified and incomplete information (Azar et al. 2013)
- voluntary self-tracking can contribute to better health and disease prevention (Lupton, 2015)
- Food logging apps, which offer a more targeted and interactive experience than simple paper diaries, have been shown to help to significantly reduce body weight in users (Flores Mateo et al., 2015)
- Self quantification enables people to tell their own stories about themselves in a new way: through data (Lupton, 2014a)

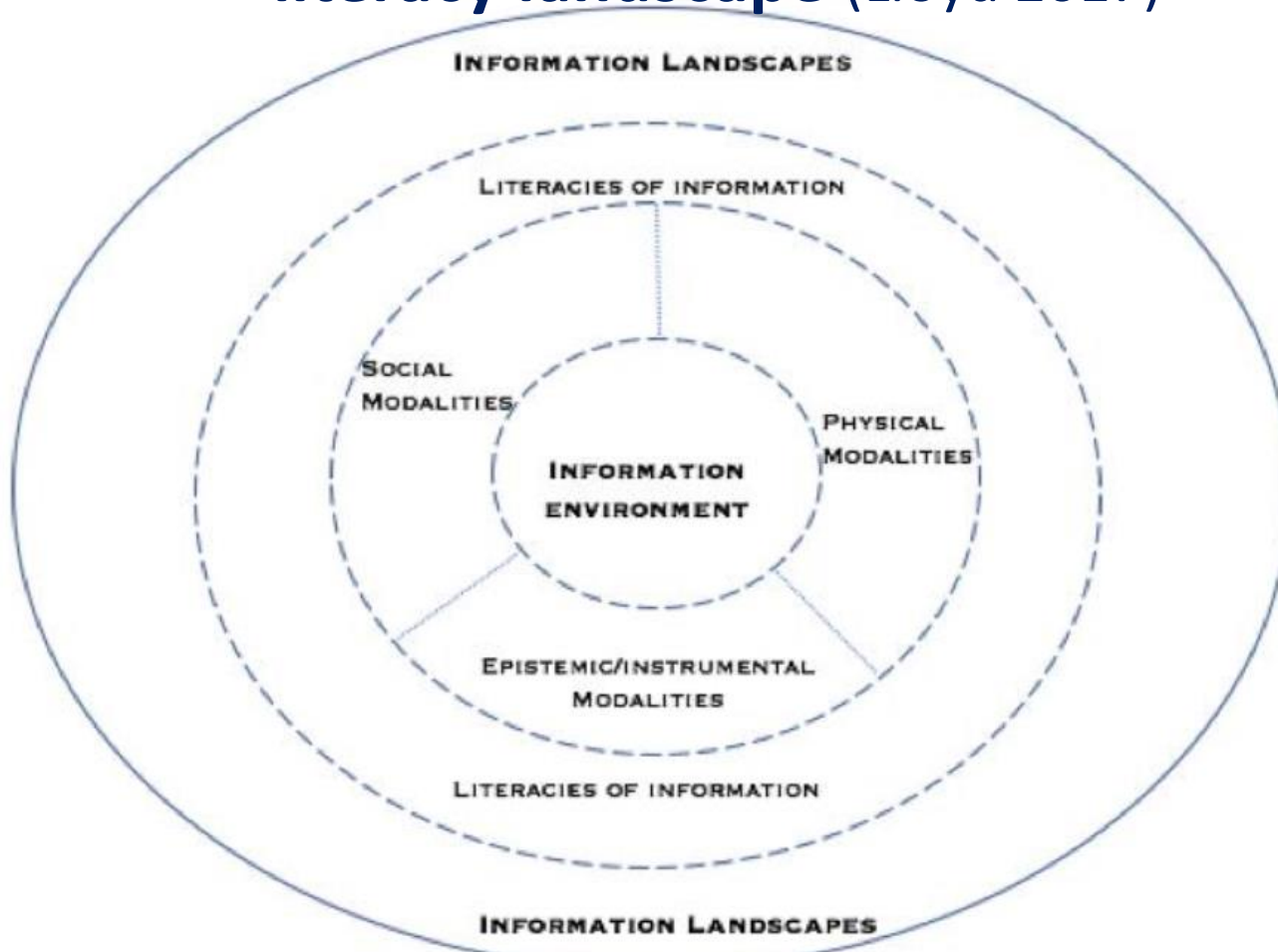


# Theoretical background

“Information literacy is a **practice** that is enacted in a social setting. It is composed of a suite of activities and skills that reference structured and embodied knowledges and ways of knowing relevant to the context. Information literacy is a way of knowing.” (Lloyd 2017)



# Conceptualisation of an Information literacy landscape (Lloyd 2017)



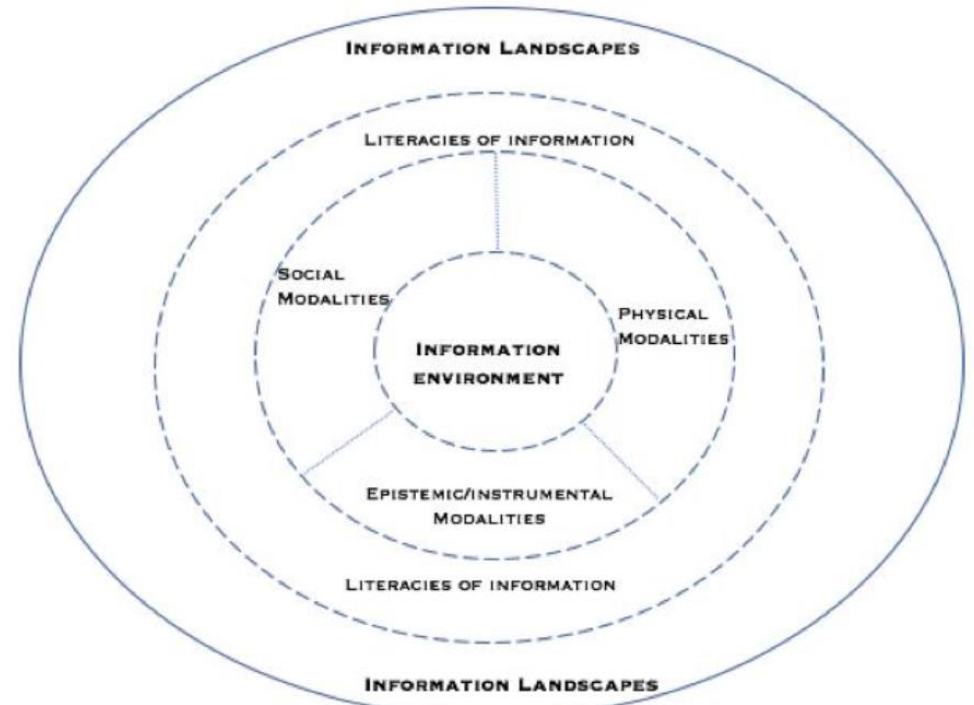


# 3 modalities

Epistemic

Social

Corporeal





# Practice theory

Practices are complex and messy, so therefore information literacy is also complex and hard to define in simple terms (Cox 2012, 2013)

How important it is, what counts as information, what is given authority is actively negotiated by participants as a regime of competence within a set of practices (Wenger, 1998).

Practices are continuously remade and renegotiated, through participation, innovations by new participants and through other changes, such as the impacts of new technology (Shove et al., 2012)





# Methodology – data collection

- Recruited participants from the volunteers email lists at the University of Sheffield
- Study advertised to both students and staff
- Participants were given the choice of being interviewed or attending a focus group
- Semi structured interview/focus group

Focus Group						
	Gender	Age	Nationality	Current app	Time used	Motivation
FG1	F	26	Middle East	MyFitnessPal MapMyFitness	2 weeks	Weight loss
FG2	F	29	USA	MyFitnessPal	4 years	Monitoring nutrition of vegetarian diet
FG3	F	36	British	MyFitnessPal	10 years	Weight management
FG4	M	26	British	MyFitnessPal	1 year	Weight management & exercise logging
FG5	F	26	USA	MyFitnessPal	4 years	Weight management
FG6	F	57	British	MyFatSecret	2 years	Weight management
FG7	F	43	British	MyFitnessPal MySymptoms	2-3 years	Weight & symptom monitoring
Interviews						
IN1	F	43	British	MyFitnessPal Fitbit	2 years	Weight loss
IN2	F	27	British	MyFitnessPal	1-2 years	Weight loss
IN3	F	48	British	MyFitnessPal	6 months	Weight loss
IN4	F	24	Chinese	MyFitnessPal	1 year	Weight management & fitness
IN5	M	25	British	MyFitnessPal	3 years	Weight loss

# Data analysis

The interviews and focus group were audio recorded and transcribed

Data analysed thematically focusing on the following research questions, using lens of practice theory & theory of information landscapes

- What is the character of food logging as a practice?
- How do the three modalities of information (epistemic, corporeal and social) underpin knowledge in the landscape? (Lloyd 2009; 2010b, 2010c; 2014)
- To what degree do participants understand and critically reflect on information as part of their food logging practice, and what importance is invested in this by participants? (Lloyd, 2010b)

# The practice of food logging

- Much variation in the practice of food logging

“I get to work and I sort of, you know, open up the PC, and it's one of the programs I open up. And then while I'm at work everything I eat or drink, you know, even down to cups of coffee.”

“So I usually don't use it until about lunchtime, at which point I'll sit down and put in my breakfast and everything I've eaten in the morning, and my lunch”

- Sometimes a continuous, small background activity, sometimes a few reflective moments each day
- Some people did not log at weekends



# The practice of food logging

- Participants interested in weight loss as a “directive” form of practice to achieve a goal
- Some were interested in learning about their bodies or were interested in gadgets – a “fetishized” practice. (Rooksby et al. 2014)
- Many combined food with activity tracking, but the two were quite different flavours of practice

# The epistemic modality

The food logger is an active creator of the information they consume

Loggers have to interpret the information provided by the app

*“But what I find quite interesting is that it gives you a breakdown of carbohydrates, fats and protein, which then I try to use to modify behaviours ‘cause it gives you sort of percentages that you should be eating”*

Information is often quantitative

*“I quite like the graphs and if you go through a period of using it for quite a while the graphs are quite cool.”*



# The corporeal modality

Participants seem to ignore taste and enjoyment of food and focus more on quantity, weight

Logging “de-pleasures” food

Logging is about “focusing” and “controlling”

Loggers distrusted visible representations

*“I don’t necessarily see it directly in the mirror. I’ll still sort of see the fat me, but then I’ll look at that and go, actually look how far you have come”*



# The social modality

A reluctance to share their food logging data with their friends and family either face-to-face or on social media *“I feel like it’s such a personal thing, it’s almost like your diary or blog”*

Wanted to avoid perceptions that they were becoming too obsessive; to avoid being boring and to avoid de-pleasuring food for others; or to protect young people who were vulnerable to eating disorders.

*“I would be very discreet at home, I think because I’ve got a teenage daughter and I’m really mindful of that she’s at a prime age for eating disorders.”*





# Information literacy & competency in food logging

- App choice informed by personal contacts, or by specific features but minimally researched
- Data input accuracy was very important

*“I’m a slave to my scales, so I weigh everything that goes in that isn’t just a single item that can be logged as you know, one apple, say.”*

- Participants showed a critical awareness of issues around information quality and the information authority of the app as an information source

# Information literacy & competency in food logging

## Participants learnt:

- The calorific and nutritional values of particular foods;
- What an amount of food actually looks like;
- To move away from calorie counting to a more sophisticated focus on balance of food types;
- To search for more information to understand what they had discovered from their log;
- Causes of particular symptoms or problems e.g. what caused bloating or an upset stomach;
- And several mentioned going back to explore what had worked in past to try and improve current weight control.



# Conclusions

- There is considerable variation in the practice of food logging
- Practice revolves around the epistemic modality, with the logger positioned as an information producer as well as consumer
- Attention is focused away from corporeal sensations
- Loggers do not share their data with friends or family
- Data quality is very important.
- Loggers develop expertise in nutritional information and learnt much about how logging worked for them to achieve their goals



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# Questions?

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