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# Curiosity, ICTs, and Attention Management

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## Bio

I am a PhD student at the Department of Computer Science, University of Oxford, supervised by Nigel Shadbolt and working with [SOCIAM: The Theory and Practice of Social Machines](#). My research focuses on ICTs and attention management, and the efficiency of anti-distraction tools such as *Freedom* and *RescueTime*. I hold an MSc in Cognitive and Evolutionary Anthropology from the University of Oxford, and an MA in Psychology and the Cognitive Science of Religion from the University of Aarhus.

## Position statement

As outlined in the workshop description, arousing curiosity is a potentially important way for designers of ICTs to redirect users' attention and behavior. Curiosity-inducing design may help users accomplish their own goals, such as staying engaged with MOOCs, contribute to crowdsourced research projects, or lose weight. However, curiosity can also be used in the service of less noble goals that are held by designers rather than users themselves. The advertising industry has long exploited curiosity to grab attention and increase sales [3], and in the information age arousing maximum curiosity is central for many online services and media platforms that compete for 'eyeballs' in the attention economy [2]. BuzzFeed, for example, have perfected the craft of curiosity-inducing clickbait with titles like "Two Lesbians Raised a Baby and This Is What They Got" [5].

Among internet users, it has become commonplace to make jokes about the observation that one often logs on to an online service (e.g. Facebook) to complete a given task (e.g. message a specific person), only to realize half an hour later that one's attention was diverted by something engineered to be curiosity-arousing (e.g. the headline of a BuzzFeed post), which in turn triggered a sequence of distractions that made

one forget the original task (e.g. sending that Facebook message).

### **The focus of my research**

A related development is that a market niche has emerged for 'anti-distraction' tools that people use either to block distracting content on their interfaces (e.g. the app *Freedom* blocks internet access, plug-ins like *Newsfeed Eradicator* remove the newsfeed element from Facebook), to track their own behaviour over time (e.g. *RescueTime* provides weekly usage statistics), or to directly reward themselves for not being distracted (e.g. *Forest* builds virtual trees during times set by the user to be distraction-free – these trees are 'killed' if the user access functionality he/she has blacklisted, say Facebook, during distraction-free times).

Dozens upon dozens of such tools are available online, and they differ widely in the mechanisms through which they attempt to increase a user's focus on their task at hand. The purpose of my PhD project is to a) map the design space of these applications (i.e. the motivational levers that designers have available at their disposal, including inducing curiosity), and b) evaluate how the existing tools influence their users' actual behaviour and subjective perception of use.

### **Contribution**

Curiosity is an important factor in human motivation. Understanding how curiosity works in an ICT context is highly important [1], not only to understand the tricks of the trade of actors in the 'attention economy' of the web [4], but also for understanding its novel flipside, namely the anti-distraction tools described. Some of these tools, e.g. *FocusMask*, explicitly attempts to reduce curiosity being induced by

distracting screen elements, e.g. by shading background-applications on one's laptop [6]. Understanding curiosity-inducing designs is therefore central to my PhD research. What I hope to contribute to the workshop is an analysis of how curiosity-inducing design plays out in the arena of the attention economy, as well as prior expertise from cognitive psychology that can suggest how HCI researchers can investigate curiosity experimentally.

### **References**

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