By Fergus Bisset and Dan Lockton

Designing motivation or motivating design? Exploring Service Design, motivation and behavioural change

Motivation researcher Edward Deci has suggested that if we want behavioural change to be sustainable, we have to move past thinking of motivation as something that we 'do' to other people and see it rather as something that we as Service Designers can enable service users to 'do' by themselves. In this article, Fergus Bisset explores the ways in which Service Designers can create more motivating services. Dan Lockton then looks at where motivating behaviour via Service Design often starts, with the basic 'pinball' and 'shortcut' approaches. We conclude by proposing that if services are to be sustainable in the long term, we as Service Designers need to strive to accommodate humans' differing levels of motivation and encourage and support service users' sense of autonomy within the services we design.

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Visualising motivation

Designers have historically tended to view motivation as something that they cannot directly influence: a complex component of human behaviour influenced by many diverse philosophical, social and physiological factors. More traditionally there has been a belief that if the aesthetic of the design were sufficiently consistent with users' expectations, people would be attracted to it and in turn change their behaviour. Motivational research shows us that this analysis is largely self-fulfilling and that such

'extrinsic' or superficial design interventions do indeed motivate behaviour and encourage engagement with a product or service, but only in the short term. The same motivational research shows that such short term 'aesthetic' motivational pick-me-ups, much like a sugar-rush or a caffeine hit, quickly wear off.

The challenge in designing for behavioural change is supporting users to internalise the values of a service so their engagement with the behaviour demanded is more than skin deep. Zap-

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pos, the American clothing company has been very effective in empowering their employees to embody their organisational values in this way, largely by employing people who already embody the values of the organisation. However, the concept of 'design for motivation' is perhaps something of a Catch-22 – design to control user behaviour too closely and you'll constrain users' sense of autonomy. On the other hand, design with too many options or encourage responsibility in users too early and without sufficient support, and you'll create an equally demotivating experience.
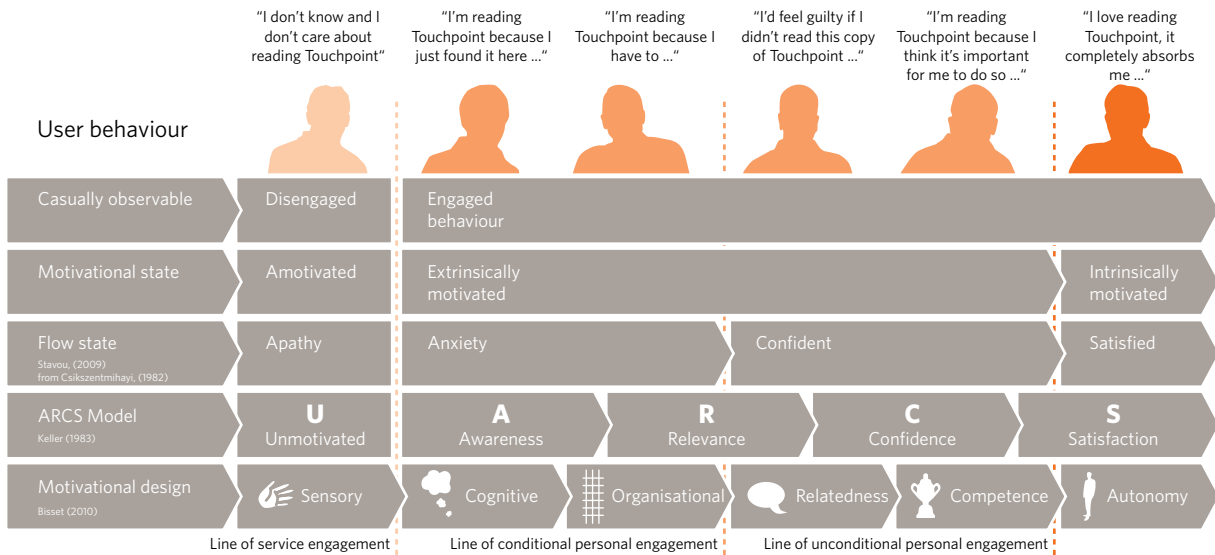
Models of the natural 'motivational' progression of users throughout an experience or service encounter, informed by research, might help guide our understanding of what motivates us. Luckily, the motivational psychology literature doesn't let us down: Reeve (2005) summarises ways that we can conceptualise how best to energise behaviour, not just in the first instance of a user-product interaction but throughout the lifespan of a user-service relationship:
Let's explore these frameworks with reference to the artefact we hold in our hands. If our copy of Touchpoint fell through the letterbox in a way that grabbed our senses, visually or aurally, perhaps the increased salience of its arrival might increase the immediacy of our awareness – this is 'the aesthetic' we mention above – high on impact, but low on sustainability. Mobile phones are prime examples of service touchpoints that encourage engagement by giving users a number of auditory, haptic

and visual signals – such as ringtones, vibrating alerts or the screen lighting up. Indeed, exploring sensory perception to increase engagement is very much the strength of Volkswagen's Fun Theory (www.thefuntheory.com) marketing campaign – a viral Internet phenomenon, demonstrating how enhanced sensory interaction can positively energise behaviour.

For designers, who more traditionally have been responsible for shaping sensory experiences through manipulation of materials and form, this is an interesting point of reflection. How we understand such sensory stimuli – cognitive representation of signals around us – determines both how we mentally organise the experience and our perceptions of its relevance to us. Our ability to organise these signals and affordances also affects whether we can effectively internalise the experience – whether it resonates with us – and whether we are motivated to continue engaging. If we can't understand why our phone is making a noise or we can't make sense of our phone bill our experience becomes a demotivating one. In this instance we are more likely to take steps to distance ourselves from this negative interaction rather than continue to approach the challenges it presents us.

Our ability to persist with a task requires that we can visualise the underlying cause and effect structure of the experience, or that we adhere to the values of the experience sufficiently to offset the interim negativity. As the above dia-

User behaviour

"I don't know and I don't care about reading Touchpoint"

"I'm reading Touchpoint because I just found it here ..."

"I'm reading Touchpoint because I have to ..."

"I'd feel guilty if I didn't read this copy of Touchpoint ..."

"I'm reading Touchpoint because I think it's important for me to do so ..."

"I love reading Touchpoint, it completely absorbs me ..."

Casually observable	Disengaged	Engaged behaviour				
Motivational state	Amotivated	Extrinsically motivated				Intrinsically motivated
Flow state Stavou, (2009) from Csikszentmihayi, (1982)	Apathy	Anxiety		Confident		Satisfied
ARCS Model Keller (1983)	**U** Unmotivated	**A** Awareness	**R** Relevance	**C** Confidence		**S** Satisfaction
Motivational design Bisset (2010)	Sensory	Cognitive	Organisational	Relatedness	Competence	Autonomy

Line of service engagement   Line of conditional personal engagement   Line of unconditional personal engagement

Frameworks of motivated behaviour from the motivational psychology literature.

gram indicates, if you wish for users to interact cognitively at even a basic level with a service you are designing – that's to say, engage with the values, benefits or knowledge structures of the service experience – sensory manipulation of affordances alone is not going to be enough. As Service Designers we need to help users see the underlying structures of the services they use.

The underlying structure of your Touchpoint experience
Indeed, how might the information contained in Touchpoint (or any service touchpoint) be organised to motivate our continued interaction? To engage users we need to help them understand the personal relevance of the services we design. When we pick up our copy of Touchpoint, colour coding directs our attention to the various groupings of content within the journal – thus gener-

ating sensory awareness. But how do we assess the value of the content it presents us – progressing from left to right in the illustrated frameworks? Do we flick to people we know – relatedness – a social connection, the equivalent of the "other users who bought this item, also bought these ..." feature on Amazon.com? Or do we flick through the journal by subject, based on our own interests? If this is the case then we might be motivated by the opportunity to assess our own levels of competence and how well articles challenge or support our knowledge.

With more time, do we simply start at the front of the journal and read from cover to cover as if the very concept of participating in this experience already resonates with our self-image and expectations? In this case it is possible to say that you are intrinsically motivated – in other words, not reliant on any extrinsic

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nudges or prods towards the goal of consuming the contents of the journal.

Of course, our personal internalisations and expectations of an experience do not always mesh with reality. If the view of motivation in this article clashes with your existing conceptions of it, what is your response? Is it to assess the authors' competence by Googling them? Or looking us up on LinkedIn or Facebook to assess our social relatedness and credibility? As these frameworks help elucidate, our ability to sustain motivation is a critical component of human behaviour and a key factor in determining how successfully we engage with services we encounter in our daily lives.

As Service Designers we are already equipped with many tools to help us gain user insights such as these. These tools also help us assess which of these sensory, cognitive, organisational, relatedness or competence needs will help users successfully internalise the services we are designing. We can also, through co-design, involve users in the design of services, allowing us to see what it is that motivates our customers and embody those values ourselves (at least for the duration of the project). Motivation is thus a reciprocal process and perhaps less about what we 'do' to other stakeholders and perhaps as much about how we visualise, interpret and design for our own behaviour. Designers do not, however, always agree on where or how users' engagement with a service should start. In many service situations, what's often required, is a kind

of behavioural specification, outlining predictably how people will interact with the service via each touchpoint. There are two approaches here (though they're probably part of a continuum): modelling people as either shortcut users or pinball users.

Pinball users
In 'Designing for Interaction', Dan Saffer notes "designers have to give up control (or, really, the myth of control) when designing a service process." Nevertheless, many services have aspects where a degree of control is desired, often for safety or security reasons. If a bank has a row of ATMs, it doesn't want customers at adjacent machines to stand too close together, so it spaces them far enough apart for this not to happen: the actual affordances of the system are designed so that only certain behaviours occur. In 2009 Nepal's Tribhuvan Airport issued staff with trousers without pockets, to reduce bribery by making it harder to hide cash, as part of a scheme to improve the airport's international reputation and reduce travellers' complaints of intimidation.

An approach like this models users as 'pinballs' to shunt around, ignoring the finer-grained process of internalisation that is a prerequisite for sustained motivation. The interlock on a microwave door prevents using the oven with the door open, yet does not try to educate users as to why it is safer. It just silently structures behaviour: users follow the designers' behaviour specification without necessarily being aware of it.

This view of influencing human behaviour can lead to poor user experience, when the priorities of the service provider and users conflict. Disabling the fast-forward button on your DVD player, to force you to sit through trailers and copyright threats, provokes significant discontent. However, where interests align, better experience can result. A hospital which fits medical gas bottles and hoses with error proofed 'indexed pin' connectors – keyed to fit together only in the right combinations – is restricting nurses' behaviour, but making the job easier and providing a safer patient experience. So, the pinball approach is not always as user-unfriendly as it might initially seem, but does risk challenging people's autonomy, and so reducing reciprocal, motivated engagement.
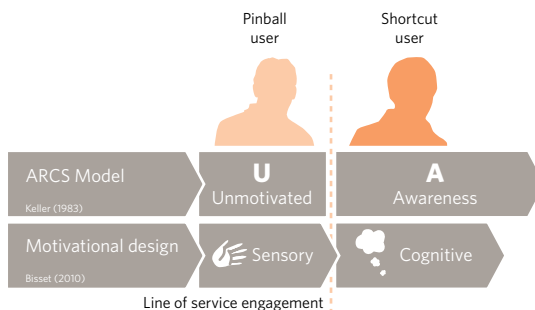
Shortcut users
While people are not fully predictable, there is enough psychological evidence that we are predictably irrational (Dan Ariely's term). There are recurring patterns of decision-making heuristics and biases, and designers with an understanding of these have a powerful tool for influencing behaviour. In an economic context, this is the premise behind Richard Thaler and Cass Sunstein's bestseller Nudge, but designers can apply many of the same insights, with the benefit of a wealth of user-centred research methods to test our assumptions.

The basic theory is that people take shortcuts. We make decisions based on how choices are presented to us, and cannot devote the same mental effort to engage with every decision we face. If something is the default option, whether print quality in a dialogue box or presumed consent for organ donation, we probably stick with it. If a bank's service staff are helpful, we start to attribute that attitude to the brand as a whole. If a restaurant always looks empty, we assume the experience it provides is poor. Individually these acts might not bear analytical scrutiny – and none of us acts like this all the time – but shortcut decisions do determine how many people behave when interacting with a service. We can use this to help people navigate choices in a mutually beneficial way: e.g.,

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Shortcut and Pinball users, a way of conceptualising a basic first stage of user engagement with a service you are designing.

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if your research shows that a segment of your customers makes purchasing decisions based purely on price, it makes sense to present your choices in a way which makes it easy to determine which is cheapest – using price as a construct around which to help users internalise the service value.

As expressed previously, the decision comes down to whether your service can help users transition from being uninterested 'shortcutters' ("I stick with X electricity company because it's too much hassle to switch") to engaged and motivated customers ("I signed up with Y because they're doing really great things with renewables, and I care about my children's future"). While designing shortcuts might be necessary to 'acquire' customers in the first place, without engaging them with the values and pro-

»The literal shortcuts pedestrians take – desire paths – can be observed and then formalised (paving the cowpaths) to meet users' needs better.«

cesses of your service proposition, it is perhaps only inertia that is going to keep them doing business with you.

Final thoughts

Ideally, mass customisation of services would allow us to meet users where they are – and perhaps move them where they (and we) would like them to be. Realistically, and despite the constraints of real world projects, the psychology literature indicates that there are clear opportunities for Service Design approaches which both accommodate individuals' differing levels of motivation and which can support humans' innate and learned responses.

It is apparent that how you envision, model and relate to your service users will largely determine the design strategies you use to motivate and engage them. It is also apparent that how narrow or empowered your perceptions of human behaviour are, as a Service Designer, will be reflected in the character of your service – and the subsequent short-term motivation or long-term engagement of your service users. ●

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Fergus Bisset has until recently been a design researcher at Brunel University exploring the relationship of motivation and design. This research has been inspired by and influenced his recent work with the Design Museum, London, FutureGov Consultancy and NHS London and continues to inspire his ongoing work with the British Olympic Association and the Youth Olympic Games.

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