

Slow Learners or a Different Class?

The Challenges and Rewards of Enterprise UX



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The perception we develop of the computer systems we use has several influences: Does it do what we want? Is it easy to access? Is it fast? Is it pretty? Most of all perhaps we judge a system by what it feels like to use. In the technical world we call this the 'User Experience', a term covering a variety of considerations and shortened, as is obligatory for technical terms these days, to 'UX'.

Designers of apps and consumer oriented software put enormous focus on making their products fun, simple and easy to use. Consumers are fickle friends at best and they don't take training courses, so apps and systems aimed at them have to be simple and likeable. Some take this as evidence that there is a widening gap between systems we use in our personal lives and those we use in our business lives.

Those of us who create software for organisations (for convenience, 'B2B' software) are sometimes derided as the slow learners of the UX classroom. The conventional wisdom has it that B2B systems are more difficult to use than the more familiar consumer oriented ones – or 'B2C' as we shall now call them.

In fact, I believe that the complexity of their environment forces B2B software designers to go to greater lengths and to employ a wider range of skills than B2C designers in order to achieve the same results. However, many vendors do not try hard enough, or simply fail in this endeavour, explaining the poor reputation of the category as a whole.

The few vendors who really excel, such as FINEOS, are characterised by a culture of curiosity about the deep workings of their chosen business domain.

Apples and Oranges?

Someone recently asked me why it was so much easier to book a return flight to Lima in one's personal life, say, than to pay a \$500 claim in one's work life. The explanation implicit in this kind of question is that B2C systems trounce the UX of B2B systems. There usually follows a muttered reference to the separation of buyer and user: "They don't care about us...", etc. Is this fair?

For a truer comparison we might imagine adding certain conditions to that flight booking.



Let's say:

- You are now booking the flight for someone other than yourself
- Capture and recording of current & evolving personal details, goals, preferences, etc.
- You are paying for the flight using someone else's money
- Authorisation controls, auditability, etc.

“How come it's so much easier to book a return flight to Lima than it is to pay a \$500 claim when I'm at work?”

- You must work out the price of the flight yourself based on the airline's pricing structure, taxes, currency conversions, etc.
 - Calculations and rules
- This booking is one of 100 you are currently making, all once-offs for different people with different banking details
 - Homepage with work queue, context-shifting, meta-level rules for defaults and repeatability
- Random people can update each booking without telling you
 - Access / update privileges, dashboards for alerts and notifications
- You must keep a bunch of people informed about the progress of each booking
 - Communications, collaboration tooling
- Regulators have dictated that flights of this type must be booked via a precisely stipulated series of steps
 - Process steps, gates, time limits

The two worlds differ.. in the challenges that must be met in order to deliver this experience.

You get the picture.

The two worlds differ, not in terms of the quality of experience that users should expect and demand, but in the challenges that must be met in order to deliver this experience. B2B does appear to be taking a different exam.

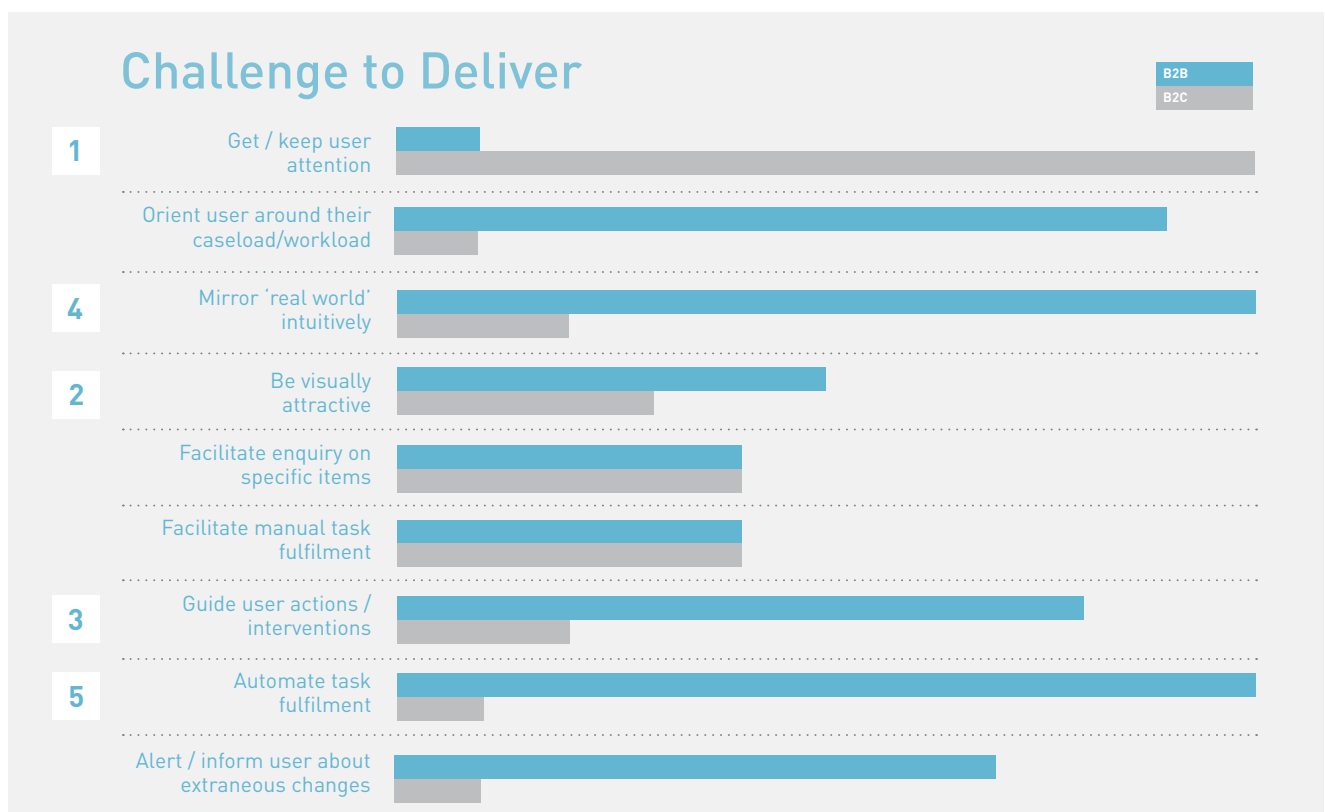
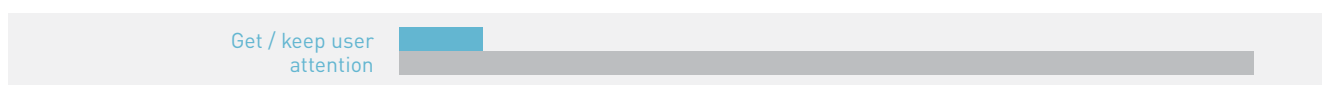


Figure 1: Same imperatives, different challenges

Let's take a look at some of the more divergent items on the chart:

1 Look at me!



We start with one that is easier for the B2B vendor. Business users are obliged to use the business software provided for them in order to do their jobs. This conveniently gives B2B vendors a decisive edge in the competition for the 'attention economy'.

2 Through a Glass, Darkly?

Be visually
Attractive

B2B product designers face a specific challenge in that what faces their target user each morning isn't the base product as designed, but that product wrapped in a configuration layer ('the clothes on the mannequin').

A consequence of the strategies vendors must employ to accommodate diversity in organisations, this layer usually includes screen layouts, captions, help, forms, defaults and workflow. (In its favour, this layer has the upside of allowing the UX to evolve locally with the customer's specific needs.)

There are signs of increasing industry convergence in certain (undifferentiating) parts of the value chain. In the meantime great designers retain control and consistency of their UX, even though it may undergo significant adaptation, through mitigation strategies such as content sensitive screens and controlled variability.



Figure 2: The product is in here somewhere

A related challenge is that enterprise products are not experienced stand-alone, as B2C products often are, but as integrated within a patchwork of interconnected but heterogeneous systems. The quality of integration between disparate systems can be highly variable and dictates how much re-keying and alt-tabbing is required, and the overall cognitive effort in building a full picture of the truth. No enterprise product is an island, though poor ones are designed as though they were. Great products are imbued from the ground up with a strong sense of their (likely) surroundings.

Design is a funny word. Some people think design means how it looks. But of course, if you dig deeper, it's really how it works. To design something really well, you have to get it! You have to really grok (understand) what it's all about. It takes a passionate commitment to really thoroughly understand something, chew it up, not just quickly swallow it. Most people don't take the time to do that.

- Steve Jobs

3 Pssst... over here!

Guide user actions /
interventions

In a post-process world of adaptive or dynamic case management, knowledge workers risk being overwhelmed by both the volume of work and the range of choices they have: where best to focus their efforts, what to do next with the chosen work item. They want help, not in the BPR-era form of linear process stage-gating, but in the form of guidance and suggestions. The best enterprise systems nudge, flag, hint, steer or downright bully users toward suggested courses of action on the basis of historic enterprise experience and outcomes.

Predictive analytics has advanced significantly in recent years and can help make users' lives easier by providing much needed information ahead of time. In addition predictive analytics induces them to act in ways that protect and advance their organisation's interests, giving a high 'return on information'.

By contrast, consumer-users, with their more sporadic and single-trick usage patterns and only their own interests to serve, have no parent organisation to protect and usually a more-or-less linear route to navigate (that flight to Lima).

4 Recognise anyone?

Mirror 'real world'
intuitively

All systems comprise a conceptual model of the business domain. The congruence, or 'intuitive fit', of this model to the real business world correlates strongly with user satisfaction.

The best systems can faithfully accommodate the real-world scenarios and variations that users actually encounter in the wild. Users looking into such systems recognise their world reflected back to them. Congruence is not much of a challenge for simple systems. Comprising only tangible entities such as person, bank account, date, address, contract, DVD box set, flight, etc., what you see is what you know. To do anything really useful, enterprise systems in particular also require abstract elements that lack direct real-world corollaries. A topic for another day perhaps, but these abstract entities may stem from a need to control the business operation with rules that govern choices and actions at a meta-level such as a FINEOS Rule. They may exist to manage the sequencing and simulation of effective-dated events e.g. a FINEOS Payment Due Event, or like a FINEOS Case they may exist to facilitate the re-use of components. Their presence cannot in practice be entirely masked from regular users.

Preserving comprehensibility with this 'congruence' now becomes a highly-skilled activity. Where it has failed, what we see is old-fashioned 'hacking':

- "It's a 4-class case but we'll need to set it up as 16 classes so that the charges work out right"
- "Mary's been here 20 years. She knows how to trick the system into handling buy-ups."



Figure 3: Distortion effect of incongruent systems.

More than this, each vendor further makes a strategic choice to locate itself somewhere on a spectrum that runs from specificity (level of fit for adopting organisations) at one end and market size at the other. This choice imprints itself on the product's DNA and, for users, specificity wins every time.

The most successful business solutions are based on systems that have struck a careful balance between a market size narrow enough for fit, and yet wide enough to have circulation, to grow a community of interest and realise those economies of scale that define a product.

No User Interface can compensate for distortion at the data level. Users need to be 5th Dan to get data in, to understand the data they are looking at, to explain it to a client or broker, or to extract anything approaching meaningful Business Intelligence.

Why do systems fail here?

Success requires the right starting point.

Each system has a distinct personality reflecting the domain for which its conceptual model was originally designed. As users quickly find, P&C systems don't convert well to Group business. Group systems don't convert well to Individual business.

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5

Automation Automation Automation

Automate task fulfillment

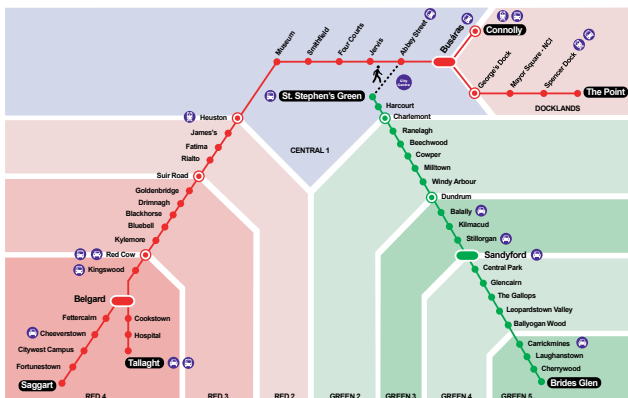
Here we arrive at the real testing ground for B2B vendors.

The best UX is no X at all.

Good B2B products relieve users of laborious and repetitive administrative tasks, allowing them to focus on higher-value and more interesting work. Designing for automation, the guiding of the 'invisible hand', requires an uncommon commitment to understanding how the business works at a very deep level.

Each system has a set of eventualities it can support without recourse to enlisting user intervention. The size of this set is a telling metric for enterprise UX. Users quickly become sensitive to its boundary. Most systems can support at least a happy path of automated processing but begin to kick out exceptions as the messiness of the real world intervenes and deviations occur.

Say we make a retroactive change to one of the dozens of input variables on a disability claim (a very common occurrence). The system re-calculates the gross benefit amount and the sub-amounts derived from that, such as tax, court garnishments and health and welfare deductions. But we now have an overpayment or underpayment position created for the prior periods, not just for the main payee (claimant) but also secondary payees (e.g. Inland Revenue). Can the system remedy this situation without user intervention e.g. by offsetting future payments? In practice this might be the third or fourth time a given benefit period has



been re-calculated. Can the system calculate the correct incremental tax liability, given what has been paid before? What if there are now some part-time claimant earnings, notoriously changeable, influencing the calculations? In scenarios like this, there is a given tram stop at which each system gets off, leaving the user to drive. Alighting early leaves users with a lot of hard miles to travel.

Ironically, automation can actually backfire on a system's user rating. Technology assessment remains an immature science. For example, I know of a particular client system whose deep automation capabilities had enabled a headcount reduction of over 50%. As the years passed, those processes & calculations which had been automated faded from institutional memory and the system's identity and reputation came to derive from its screens. Unfortunately these screens catered only for the tricky business scenarios that it was uneconomic to automate. On this shallow assessment, a (doomed) replacement initiative was launched.

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Concluding Points

It is perfectly reasonable of users to have the same UX demands and expectations at work versus outside. Achieving these standards turns out to be a lot harder in B2B.

While some B2B vendors can achieve a level of visual attractiveness, few can hit the higher (and ultimately more valuable) notes of UX, including the big prize of automation. It is an extremely precarious and highly-skilled activity to abstract generic models (both data and functional) from the specific contexts and purposes of diverse organisations. These are not discovered through the research, but must be actively constructed and iterated. Success results only from obsessive triangulation.

Almost without exception, the best products are developed by teams with desire to solve a problem; not a company's need to fulfill a strategy.

- Jeff Weiner

FINEOS Design Ethos

At FINEOS we have always had a passion for solving the most challenging business problems in our target market. And our market has always been consistently well-defined and bounded: small enough for genuine market-fit, big enough for ambition and growth.

The complexity inherent in our chosen domain represents to us an intellectual challenge but is also a barrier to entry for less capable vendors. It is compounded by the demands of creating, not one-off or short-shelf-life solutions, but products with the genericity to circulate and endure. We have a culture of curiosity about the deep workings, today and tomorrow, of the business domain.

Over the years, this culture and ethos has become increasingly embedded as a practice that predictably achieves the specific benefits of good design, including best-in-class automation and an internal grammar that is both comprehensible to users and 'corner-case ready'.

World-class visual design and interaction design complete a great experience for our users. The pay-off is our products' success in improving the service our customers can give to their customers and, in turn, the added business they retain and win.

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