

The Future of Efficiency: Integrating Consumer Feedback Loops in Digital Platforms

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Abstract

Digital platforms are increasingly relying on third-party data to inform their product-service development. Open data initiatives have emerged in an attempt to democratize data, while platform-based companies have resurrected two-phase marketing to inform pricing. Because many users are still unaware of the potential value of their data, and as a result are taking no action to solicit better services, it is not surprising that editing third-party data is not a priority for them. User-producers' larger data pool does not ensure a fairer and more robust data economy, as algorithmic power remains an issue for all actors and the origins of the potential infidelity remains hidden. The future of efficiency is neither having platforms give lead users data that is unstructured and unfiltered, nor giving platform companies the data of the general public. The approach will need to focus on the consumers and on actionable insights based on their feedback, while also putting the focus on consumers' reservations about relinquishing feedback [1]. In addition to the exterior issues of the feedback mechanisms, there are potential adjustments in the feedback processes to improve engagement. Certain adjustments relate to the initial experience design of seeking and providing feedback by the consumers, while others concern the tools and prompts built into the platform feedback systems. The design includes both the design principles that can be adjusted to create immediate appeal and facilitate involvement, and design criteria that require more extensive testing and calibration before reaching critical levels of adjustment and widespread applicability while still being arguably necessary for any digitally enabled system.

Keywords: Efficiency, Future, Integration, Consumer Feedback ,Digital Platforms ,Real-time Data, User Experience ,Continuous Improvement, Automation ,Personalization ,Analytics ,Engagement ,Scalability, Innovation, Decision-Making ,Transparency ,Responsiveness ,AI Integration, Metrics, Iteration

1. Introduction

The 20th century has been called the century of the consumer and the brand and the prospect of the consumer taking charge of the future through mass organization in the public interest has been seriously entertained. However, national consumer federations within Europe have until now generally been considered neither national nor powerful and

strident organizations of individualistic consumer associations have not emerged, even in the USA. The factors determining this slow advance of the consumer ombudsman thinkable in terms of the growth of capability at least four important typologies as regards levels of capability are outlined under which factors may be listed.

Consumer issues broadly discussed are the issues located at the point of contact between shoppers and their shopping environment. Therefore topics like ticketing, counterfeit currency and not least reading of price display or signal interfaces are touched. The most important thing is the construction of this concept. It is argued that consumer issues fundamentally are public issues or government matters. Some general discussion of norm and condition-based issues is presented within this context. It is argued, that the various consumer protection points of view, as well as the solutions they are likely to promote, derive from very different and overlapping thinking traditions in the fields normative theory, science, law, and economics. An overview of criteria as a simple and limited attempt to clarify preferences and enabling technology in increasingly complex shopping situations for laypersons is presented. It is further debated how different kinds of criteria are likely to mutually interact in uncovering the essence of preference in a shopping situation and what is digestible by the second unit consumer in his/her confrontation with alternative informational interfaces. Since it is assumed that this search task begins with basically a presented information unit, it is suggested that this unit is a multi-faceted signal. The facets are the various aspects of a good that strategically can be freed with the signal interface.

2. Understanding Consumer Feedback Loops

Consumer feedback loops are a type of dynamic feedback that can break our consumption and waste habits. Consumer feedback loops work as follows: 1) bottlenecks to resource use are identified; 2) these local resource scarcities are then monitored by citizen sensor networks; 3) the sensor data are aggregated with widely available data sources; 4) the aggregated data are analyzed for consumer behavior; 5) a creative subset of this analysis is displayed to the public with playful media using cultural techniques; and 6) this rich public debate changes consumer feedback and affects infrastructure investments. The goal is not to deliver

actionable feedback directly via services, but instead to create a wide public debate. The focus is not on user behavior, but instead on the apparent structural limitations to it. Media plays an important role by making a compelling case for the hidden costs of consumer behavior. There have been several decades of research in zoning, building codes, and public transportation features that can affect urban energy use.

Eqn.1: Feedback Loop Efficiency Gain

$$\Delta E = \alpha \cdot F \cdot I$$

- α is a proportionality constant based on platform adaptability
- F is a function of feedback volume \times feedback relevance
- I includes speed and accuracy of implementation

While diagnoses of the well-known factors behind inefficient urban energy use have been made, developing empathic narratives to share these insights across civic audiences has only recently been attempted. Many systems that display raw feedback from energy use in buildings or municipalities abound, but only few that present this data in a way that triggers empathic global behavior changes or discussions. An initiative was created to study and promote feedback systems that create a discussion about efficiencies' clear benefits and regulatory options to increase them. Most media products use mappings and timelines to distribute abstract supply-side energy data; few translate them into narratives about the environmental costs to affect the local populous demand-side choices.

2.1. Definition and Importance

Consumer feedback loops exist when consumer behavior affects the behavior of a platform through its feedback channel. Consumer feedback loops can take many forms, but they always consist of two essential parts: the core of the platform, where consumers interact and transact with one another, and the feedback channel, where consumers can share their experience with the platform, the core or other consumers. In contrast to consumer feedback, the feedback channel does not necessarily have to

be independent from the core. For instance, review and rating systems on hospitality platforms are usually embedded in the core, purchasing transaction on retail technology platforms is normally made on the core but informs the platform about the consumer behavior. Despite the differences in feedback channels, consumer feedback loops characterized by their full integration of feedback channels are lacking and are not considered in the understanding of platform efficiency.

Consumer feedback is crucial for an information asymmetry transaction model's success in the digital economy. Basic economic models assume perfect information. However, for some platforms in the digital economy, the valuation of the products could be based not only on the intrinsic product quality, but also the transaction and post-transaction behavior of platform intermediaries. If consumers cannot know the product or the consumer verification information before the consumption, it is necessary for a feedback channel to maintain the informativeness of the platform, otherwise the platform is bound to fail. Even if the evaluation is based solely on product quality, utilitarian consumers still prefer to purchase other consumers' more valued products.

2.2. Types of Feedback Loops

Feedback loops become salient in branded digital platforms: a first phase in which users can radically re-allocate their budget within the platform markets, an intermediate stabilizing phase where they can re-allocate only within firms they contracted with but on any dimension, and a final "one-click" feedback-free phase in which consumption choices are largely mixed, and their consequences untracked [2]. Feedback-free spaces arise in the mix of repeated collective challenge, inter-firm competition, rival platforms, and competition over dimensions of attention from those firms (attention markets). A systematic leak of consumer feedback finds a viable implementation path only through an algorithmic

switch from first to second order attention allocation and firm-to-firm loss of its consequences. Platforms introduce feedback-free spaces as a protection from rival platforms or oversight authorities over competition in an over-saturated environment and in turn lead to a systematic decay of efficiency. Broader aggregation of user and consumer feedback in branded digital platforms in the absence of consumer feedback will self-reinforce the salience of non-consumption venues and leads to a widespread inefficiency in the platform markets themselves. The future of such feedback-free spaces in branded platforms markets is left to theorizing and speculation. They could vanish by a substantial drop in the marginal cost of tracking consumption choices and switch back to completely feedback-empowered markets or by a collapse of major players, where consumption choices become only trend aggregators and a feed-in for a next generation heavily feedback-protected meta-ecosystem.

It would create a derivative structuration path of the flowering of feedback-free spaces in user-generated digital platforms markets or in competing attention-based markets. Brands would have to face entry markets with exponentially increasing possible dimensions, firms would have to track very few of them by a battery of adaptive monitoring procedures, and consumers would need to filter verified choices on many more dimensions. Consumer feedback would be salient exchangeable commodities but with decreasing latencies and possibly no bottom-up and exploratory redistributions of its benefits. A detailed discussion of such self-verifying consumer feedback mechanisms and alternative reset paths is extensive and beyond coverage.

Consumer-feedback loopy economies would be by definition systems of second-ID gameable and uncheatable payoffs. An economic framework making it checkable would largely depend on the labelling of effects with social gameable construction signatures, i.e. patterns of second ID behavior. It would also provide an exhaustive

arsenal of simple algorithms producing such signatures, their population detection tools, and an extensive pub/domain/browser of theirs.

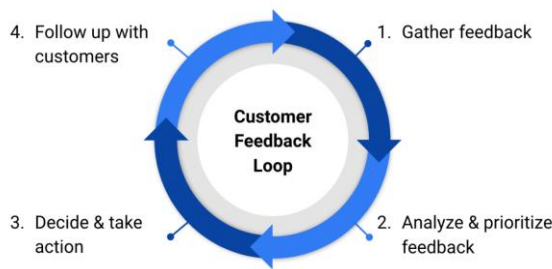


Fig 1: Customer Feedback Loop

3. The Role of Digital Platforms

The emergence of digital platforms and their openness have enabled the flourishing of platform economies like companies providing services in trade, travel, work, goods and data, ride-hailing/transportation, finance and events. The advent of platforms is said to “drive an industry” and “revolutionise the business models of healthcare”. Inconventionally, platforms provided tools that facilitated networking, sharing, and interplay among peers. These tools however adopted certain pricing structures or workprocesses impeding their business.

The ever-increasing critique of platforms’ control has been amplified by digital rights movements. Self-organising production forms manifested in blockchains have been heralded for enabling more equal and just digital economies notwithstanding their proven failure at implementations in most scales. Platforms locally control monetary and asset distribution and design governance logics that control contributive inputs. However large platform owner firms often oppose governmental attempts to enforce stricter taxation and regulation.

It’s worth exploring how this reflective view would enable productive and just digital platform economies. While propositions include support on cooperative formations, legal entities or just governance logics, market structures or tax regimes, there is little understanding on platform economics proper. Digital platforms differ from traditional

companies by constructing markets between multiple actors or groups, and there is adoption of market-level protocols and pricing structures that enable exponential, feedback-growth and diverse governance of such marketplaces. In ethic, value is defined by a platform and based on its data collection capacity and economically by what such mass means to “winning”. However understanding of leasing a service belonging to an economic agent in a level of binding privacy, or what constitutes ethics in the digital realm is rich with contradicting views. This section provides a typology of scalability logics of digital platforms, a basis to explore meanings of “efficiency” in a new manufacturing and regulatory digital economy and how wrong efficiencies caused by litigated tech-careers, privacy risks, obsolescence and monopolisation could be avoided.

3.1. Overview of Digital Platforms

Digital platforms have emerged as a domain of its own, integrating themselves into different industries and serving diverse consumer needs and desires. Plenty of examples exist from various domains regarding digital platforms, including social media, online exchanges and marketplaces, crowdsourcing and work platforms, the sharing economy, and crowdfunding platforms.

Digital platforms have been defined as infrastructures that match the demand of some activity with the supply of it. They can be considered marketplaces for products, services, or data. A key former development of digital platform economy was that a significant part of the operations moved from traditional to the digital environment. Another key moment was the flattening hierarchical space, where a company’s own production and distribution capabilities were not the only way to conduct operations, but the best alternatives took place outside the company, making companies become agency or platform descriptions of their operations rather than event planners, coaches, or firms.

There have been definitions of the digital platform economy as a new economic era, based on the orchestrating external assets to create new business models. In this new era, companies can evolve from an orchestrator of resources into an agency or customer-centric firm. The essence of the customer-centric externalization is in creating producers and integrators in the platforms of commodity purchase and production. The evolution of Amazon from an e-retailer to a platform is one of the most notable examples of this type of prospect. However, firms have to consider whether to open their APIs for designers of external developers. The opening option can increase its value, as each additional developer increases supply. On the other hand, opening the API gives core assets to potential competitors. Thus, a carefully considered choice is necessary; many firms have made contradictory decisions.

3.2. Impact of Digitalization on Consumer Interactions

The need for sustainable approaches that enhance the efficiency of all business operations while providing consumer delight becomes even more evident in light of the expansion of digital innovation in the consumer space. In the eyes of consumer-centric service providers, this feedback loop concept resembles a new endeavor. In the future, digital service platforms are expected to have greater and more effective roles in consumer delight enhancement [4]. The essay highlights some of the anticipated effects on service provision models of the feedback loop concept, which will be strongly influenced by the ensuing efficiency revolution.

The online interaction channel between consumers and service providers is prediction-driven, but the wisdom of consumer segments may somewhat lose effectiveness as digital consumer interactions become more widespread. The intelligence of consumer decision processes is another barrier to achieving perfect and complete consumer feedback loops. Holistic panel-based artificial intelligence,

gleaned from numerous smaller business intelligence models, will be the future success opportunity in this regard.

Future consumer interactions will be more complex, more segmented, and more massive even when focused on the same service provision. The ongoing evolution of digital platforms is expected to have a far greater impact on the conversion of consumer service delivery processes than on the planning stage. Nevertheless, the input of consumer deliberation on the planned service provision process will remain vital, and more points of interaction will be needed to gain sufficient knowledge about the preferences of relevant consumer segments.

It is expected that service providers' sophisticated prediction of the ideal planning of the service provision process will become more costly and complicated in the future. To improve efficiency, service providers will need to involve a greater number of consumers in the co-creation of value. On the other hand, interactive consumer actions during the consumption phase will be greater in the future to assist their self-service capabilities [5]. For this reason, service providers are likely to reap more benefits from a set of feedback loops that are mainly consumer-driven.

This scenario describes an operational model not sufficiently grounded in the current highly digitalized consumer market. This may happen in the future, emphasizing the payoffs or costs of the competitiveness of multi-activity feedback loops on economic growth, service delight, and sustainability.

Eqn.2: Customer Satisfaction as a Function of Feedback Integration

$$CS = f(FI, R, T)$$

- CS = Customer Satisfaction
- FI = Feedback Integration Effectiveness
- R = Relevance of platform updates to user needs
- T = Time taken to implement feedback

4. Integrating Feedback Mechanisms

To address the issue of low engagement among consumers of digital platforms, the latter may want to consider implementing feedback mechanisms that track satisfaction by measuring user activities, or events, across the interfaces. Event processing platforms can collect events from mobile apps, web apps, and back-end systems in real time, and match those events against user, item, or transaction profiles every few seconds to issue feedback to consumers. Consider the example of a recommendation system. By using an event processing platform, consumers can be informed when an item is recommended or, conversely, when a recommended item has not been consumed. The former can be considered an “effort made” input, while the latter can be rendered a “lost revenue” output. Such mechanisms are expected to foster consumer engagement by providing timely information on items for sale and under-use notification.

To gain a better understanding of feedback mechanisms, it is first important to note “what is learned.” Cognitive feedback mechanisms mainly influence either external cognitive processes regarding the perceived usefulness of the platform or internal cognitive processes about awareness, attention, and understanding of the platform. For example, when leaving a mobile app unattended, users usually receive warning alerts of “You haven’t played this game for a long time” to remind them of the utility of the app. When making a purchase, it is common to receive recommendations of analogous items or those compatible with the selected product to bolster incremental consumption, which in turn amplifies the platform’s utility. These two points illustrate how feedback conveys practical and rational information to users about the platform.

It is also important to inquire how feedback can be processed. To better illustrate the process, consumer attention distribution is framed into a data-driven model where the learning input is designed to have two overarching parts depending on which item

number is larger. It then allows invigilators to manipulate the difference of the input at a certain amount of feedback periods to understand better the inner workings of the feedback. After extracting the ground-truth attention dynamics, it examines how data-driven intelligence reacts to the feedback driven by different tracking/shaping methods. The aim is to provide insights into how consumer satisfaction can be manipulated in the platforms, how data-driven intelligence can be understood and controlled, and to lead better designs of data-driven models, feedback mechanisms, and recommender systems.

4.1. Designing Effective Feedback Systems

Unlike conventional feedback systems, modern digital platforms can leverage micro-aggregated analytics with limited computational capabilities at the edge. Amid bounded rationality and fundamental uncertainty, interactions of consumer feedback and platform innovation dynamics can lead to highly unpredictable paths as a result of “emergent behaviors.” In this context, emergent feedback barriers define positive and negative feedback loops which can isolate the platform and stymie its growth. However, transparency of incentive design and clearly defined growth conditions may allow systems to survive extreme imbalances in the short term.

Service platforms capture consumer feedback as rating metrics answered for entire markets or competition segments. Sufficiency is defined through informational completeness and homogeneity. This limits creativity as consumers’ deviations from the norm are far less emphasized than similarities [6]. The statistically sufficient state may not suggest new trading behavior as designed platform rewards are exactly dependent on underlying reachability distributions. Through a wider offering of consensual feedback channels with varying computational capabilities, rational consumer rating behavior for a single service can be designed. Multi-person schemes incentivize feedback on an openly shared service.

Beyond their immediate rating potential, plentiful feedback transfers with diverse computational complexities make platforms more resilient to actively damaging consumption growth rates. Intelligence can be harnessed on the edge to cure deeply embedded disequilibria paths that conventional platforms need to reformat to defect. Trade-off constraints are defined which allow informative consumer micro-data to remain under control in cases of inadvertently and intentionally damaging consumer behavior.

4.2. Tools and Technologies for Integration

Despite the significant variability between digital platform applications, there exists an integration reference architecture that can be employed in both commercial and public service platforms for integrating feedback mechanisms. The recommendations provided below portray a human-centric architecture model comprising six levels with specifications for every level, which can be utilized as a tool for integration at different levels of a platform's architecture. These six levels of integration can first be distinguished: the I/O level, which addresses I/O mechanisms for active consumer interaction, passive data gathering, and the provision of feedback messages on reactions or actions taken based on feedback provided; the mediation level, which provides a combination of preparation, representation, and delivery mechanisms that enable appropriate monitoring and understanding of consumer contribution in the intended feedback; the service level, which transforms raw data into feedback knowledge providing consumers quality assessments, recommendations, warnings, redirection, or unmet needs; the domain-level integration with respect to the design and operations of the digital platform service; the affordances level, which specifies and enables the technical negotiation and control of the availability of integrated components across a domain; and the governance level, which sets the operational rules and guidelines for actors at various levels to take/forgo actions to ensure platform

efficiency and control over all system levels. This model depicts the lower nodes that both comprise ontological specifications of concepts, actions, and protocols in distinct knowledge domains. It makes three distinctions: first, between components providing the feedback and affording integrations; second, between horizontal correspondences across systems in a integration; and third, between integrations on various timescales ranging from one-off batch executions that can be automatically activated by technical triggers to continuous assessments. In align with the higher integration levels, the ontology is on a more abstract and problem-situated level than in compliance with attribute-based component-level mediations. Consequently, sources integrate domain knowledge and account for feedback knowledge; conceivably, they elaborate in more concrete terms constituted MAC and oracles in accordance with ontological specifications of domain knowledge.



Fig 2: The Importance of Customer Feedback

5. Case Studies of Successful Integration

Several organizations and platforms across diverse sectors (including e-commerce, social media, and service-based industries) have demonstrated successful integration of consumer feedback loops into their digital platforms. The case studies showcase the diverse range of approaches taken in integrating consumer feedback loops, as well as the concrete efficacies thereof.

The e-commerce platform has established itself as a cornerstone in the digital economy. It is known for

its sophisticated consumer preference analysis based on their feedback loops that maximizes consumer utilities through personalized recommendations. A detailed analysis of consumer reviews shows how they are grouped in a high-level structure which are further analyzed and utilized in complementary methods of clustering, time series evaluation, and graph modeling. Therefore, advanced analytical models of consumer preference could be successfully integrated into an effective design of feedback loops for social platforms.

Another major e-commerce platform that has effectively matched services with consumers is another service. Despite having investment-backed customers and substitutes, it was still able to achieve a large market share by providing better service and information matching based on consumer preferences. This advantage is mainly rooted in the effective designs of feedback loops regarding bookings and reviews.

5.2. Social Media Applications

One platform is currently the world's largest online freelancing service platform. Despite being frequently criticized for underestimating the dangers of its online markets, it has a stage-gated mechanism to match employers with freelancers who post a job request with budget and expertise at first, and then score service quality reviews before finally putting the project's job status on track. A detailed analysis of employ services shows the closing gaps between prices offered and the usability-based prices determined by freelancers' feedback loops.

Another successful digital platform is a dominant ride-hailing application in the world, also critically criticized for its strict 'ideal working concept' of requiring 40 hours devoted to the platform a week. Its success as a ride-hailing service also involves a sophisticated design of feedback loops regarding driver quality, feedback of their rating to other consumers, incentives, and selection of regions and times for surging public attention drawn from customer complaints.

The theatre is the most renowned brand in film viewing services, providing an exceptional watching experience through an enormous and distorted screen, perfect acoustic systems, and wide angle stereoscopic views superior to traditional theatres. This unique experience is effective in turning consumers in traditional industries into loyal consumers of theatres. The feedback loop design includes seasoned crew skills required for projections to reduce errors, innovative direct feedback channels, and social networks as discussion platforms.

This insight is also valid in the case of spa-based industries, of which one brand was the first attempt to blend western-style paintings with traditional spa experiences. There are numerous pictures and comments about it on social media sites that help it engage loyalty and recommendation of consumers in the beginning, as well as improve gross generation capabilities to keep it a top player in the industry.

5.1. E-commerce Platforms

Online markets are pushing for integration with suppliers, even beyond their own capabilities. The integration of commerce and cloud is being emphasized by platforms like SaaS e-commerce and dropshipping. Globalization is spurred with the involvement of Chinese brands at the marketplace; market platforms provide updated tools for more sellers to buy media and advertise. A significant amount of cloud computation is expected from the expanded utilization of AI, data science, and computer vision [8]. High priority is given to re-establishing the supply chain in e-commerce and completely automated warehouses are set up to alleviate regional demand temperature differences. Operators of e-commerce platforms expand the traffic scenario with coupons, positioning itself as a gateway in the consumer universe. In addition to traffic mediation, the managements, new services are introduced to integrate suppliers to stream operating logs and relevant metrics; elsewhere, traffic-oriented e-commerce operators are delving

into business AI analytics for online stores and supply chains. E-commerce platform operators also shift resources into offering industrial solutions in self-driving warehousing, return processing, transport and second-hand circular economy. Simplicity is pledged under self-service-native warehouses, essence captured via AI identification, and automatic recycling machines. This initiated the consumption and supply matching, thus prolonging brand loyalty from past purchase to continuous consumption.

Traditional retailers are facing offline and online attacks. Armed with huge data, hypermarkets co-operate consulting firms to provide analytics services; channel-relieving brand stores position as a portal, and the first large moves into laid-off physical space through M&A; mass retailers size up the integrated layout of omni-channel from warehousing to front store; and farmers plus cooperatives parallel sell vegetables online to exploit the perishability. It is crucial to digitally track prices and integrate supply and demand across silo channels. It may be hard for small and mid-scaled retailers to survive, let alone control the data wall against channel providers.

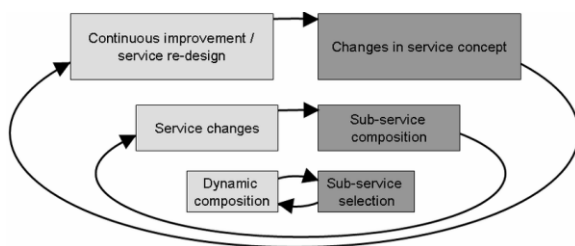


Fig 3: Three integrated feedback loops.

5.2. Social Media Applications

The birth of social networks was significant. They have since evolved into a behavioural and habitual phenomenon. The phenomenon here means the persistence of said behaviour as time passes and the increasing and more frequent manner for usage. This ultimately leads to an eco-system composed of services, cost, and profitability models. Focusing on the profit-making aspect of social networks (i.e. monetisation of accounts), explore the framework

that social networks may use to create advantages for brands. In particular, delivery systems, digital word-of-mouth, co-creation or crowdsourcing applications, and targeting procedures all have a separate impact on different dimensions of brand equity. Appetite for information flows, exchanges of commodities, and connections to family ties, fellow students, or colleagues sparked innovation in technologies to accelerate the enhancement of social networks in internet platforms.

The commitment of companies and institutions to social networks is significant. However, despite intrusion on customers' online consumption avenues, a gap was forming between social networks and companies/institutions. Some social networks prospered at a phenomenal growth rate in three or five years' time but also collapsed remarkably abruptly. They were some viral sparks that generated huge social networks in a similar way to mere explosions. Some actors might want to control the social networks and keep adding fuel to their growth as there were big benefits in it, while at some point, it became a basket of uncontrollable value; that is a deluge of trivial contents surfaced and with reciprocal backlashes growing everywhere.

predict the performance of one-trick ponies in the social media-based gaming industry. Shifting the attention from the social network as a platform to a specific kind of contents unique in an individual social network, this study advocates certain beacons that illuminate informative contents trapped in overwhelming trivial information flows. focus on social media prediction. Statistically significance with respect to certain entities' McCracken returns has been tested and it is confirmed that social media and economic time-stamped changes in sentiment correlates and co-variate prediction is applicable.

5.3. Service-Based Industries

The retailing and service-based industries were the first to get not only the degree of disruption but their core modalities transformed by the intermediation of digital platforms in a way that has impacts still being explored by scholars. The core

B2C value offerings of the service-based industry, like EPCMs (entertainment, press, commercial media), have shifted after transitioning to new modalities of value creation mediated by those digital platforms. The marketplace monetizes value creation characteristics created once the information goods have been produced by integrating both P2P loops of firm and consumer users. The systematization of those loops and the continuous feedback modes are in constant triggering anxiety for better actioning in providing effectiveness and efficiency frameworks in those digital platforms.

Commercial media services and platforms have transformed in the last two decades. In 2007, merely 12% of advertising investments in the USA were directed toward online services compared to 88% for traditional media. From that year on, investments on commercial media increased by around 50%, while investments in traditional media have been in constant decline and are projected to reach zero in 2024 [9]. In such a scenario, legacy retailing firms had to compete not only for market share with other traditional firms but also face the challenge of building their own digital platforms and protect their customers' information and habits from stakeholders they once considered partners. The COVID-19 pandemic has further accelerated this transition since retailing value accommodations increasingly started to be crafted in elaborate, complex, and interrelated B2B2C systems. Despite that and the increasing emphasis put on platform to platform self-execution responses by industry stakeholders, great concerns have arisen regarding the future of this industry created by information technology.

6. Challenges in Implementation

Changing the mainstream model of consumer interactions from the conventional lens of high substitution costs driven by switching costs, personalization, and habit to that of a digital platform ecosystem of low switching costs driven by consumer feedback loops is a significant leap in business vision. Such a leap, while theoretically

clear, presents a series of challenges in practice. These challenges are primarily technical barriers, consumer resistance, and data privacy concerns.

On the technical development side, digital service customization algorithms suitable for consumer feedback loops are in their infancy compared to large-scale marketplace service matching algorithms. Any feedback loop will be driven by the conversion of a consumer or its query into a signal. Digital platforms must deliberately capture consumer feedback cues as signals through consumer interaction degrees and time cohorts.

Consumer feedback loops inevitably come at a cost of data privacy concerns. The interaction costs between consumers and digital platforms, and hence the potential risk of information processing misuse by online businesses, grow quadratically with switching costs. With mounting public scrutiny of consumer data privacy, some may perceive a platform ecosystem that links many services as an even larger target of data abuse. While declining consumer switching costs on marketplace analogies invite a new line of exploitation-driven competitive strategy, major acquisitions and integrations of marketplace platforms by big tech in recent years underscore this growing concern. On the one hand, consumer reactions to news of a digital platform's competitor acquisition are likely to depend on the extent of perceived service intersection. On the other hand, a digital platform ecosystem still houses open window of data exploitation opportunities, in particular between ancillary platforms acquired later.

6.1. Technical Barriers

To effectively implement a Consumer Feedback Loop (CFL), platforms need to meet certain technical requirements. Meeting these requirements poses a challenge as they are beyond the typical skill set of platform owners. However, the good news is that there are partners across the globe who can pick up the slack. The technical requirements of this new process framework are social, data-organizing, and technical programming skills.

Platforms need to ensure that consumer feedback is both collected and effectively utilized to create competition. Seeing this, it is important to normalize this process across the entire platform. Platforms need to structure all consumer bureaucracy in a structured manner, so that opinions can be taken directly into the platforms' inherent organization of the market. This means that, for each comment, platforms have to automatically check whether it is relevant, remove identifying material, ensure that the comment is validated, prior to putting it in the shared consumer database. Each comment should be geo-tagged to the market it refers to.

Easier oversight of the previous steps depends on classification, for which the same technical constructs are needed. All consumer comments must be categorized by issue category and action category. An overview of the main, minority issues for the last round of commenting should be logged per market, as well as on the most prominent change requests made in previous rounds. Platforms should also create a template through which professionals can easily comprehend the organization and specifically the richest comments. With permission, all consumer negotiations should also be logged. Lastly, consumer formats must be classified, and instead of giving unlimited text boxes in which anything can be addressed, platforms should structure consumer comments to mainly solicit input on knowledge-based issues and action categories. This way, the fear of being overwhelmed by consumer input can be softened. The second level of programming dependencies concerns the programming of the platform itself. It needs to automatically integrate these CFL-outputs into its format. The idea is to have a trained script automatically check for any significant developments in consumer negotiations, questions of consumer classifying, and the enrichment of movement tracking numbers, and announce them.

Eqn.3:Platform

Optimization

Score

$$PO_t = \sum_{i=1}^n (U_i \cdot W_i)$$

- PO_t = Platform Optimization score at time t
- U_i = User feedback metric i (e.g., satisfaction score, NPS)
- W_i = Weight of that feedback based on importance or frequency
- n = Number of feedback channels or metrics

6.2. Consumer Resistance

As the diffusion of an innovation proceeds, some consumers will begin to feel threatened by it. The reasons for this can vary greatly. Some consumers may feel a loss of social status, others may have had bad experiences with related innovations, while others may disapprove of the companies or people promoting an innovation. Whatever the reasons, it can be difficult to predict the number of people who will resist a given innovation, or which specific segments of the population will be most resistant to it [10]. A well-known class of innovations that win consumers over after a lull in adoption is disruptive innovations. These are innovations that serve a niche market that is considered unattractive by incumbent firms, and over time gradually attract more mainstream users, who feel that the innovation is compatible with their decisions, experiences, and habits, until eventually triggering the incumbents' backlash. Other innovations never succeed in being accepted by consumers, either because they are rejected outright by other influential ideas, or because they remain in a marginal market. The nuances surrounding acceptance and resistance have illuminated the theme of resistance to marketing practice. It relates to how market practices, brand meanings, and corporate identities are challenged and contested [11]. By resisting marketing practices, consumers negotiate their identities, individual and collective power, and the role of marketplace performance in consumption experiences. While previous research has regarded consumer resistance to marketing as a rare phenomenon, it has long been documented in the literature in a wide variety of contexts. Investigating

marketing, operational innovations, or brands that are the subject of resistance can promote better stakeholder understanding of resistance and its managerial implications.

6.3. Data Privacy Concerns

With the increasing awareness of privacy disasters and the rising attention to privacy issues, consumers expect more transparency from platforms and anticipate a ‘fair’ allocation of privacy costs and outcomes. In the study published on Information Systems Research, while they gain a better understanding of the privacy pressures laid on platforms, their social dilemmas. In building new ways to convert consumer feedback, the need for consumer rights arising from data privacy concerns becomes more evident. Digital platforms will never go away, yet they can be made more socially acceptable. In terms of privacy, consumers typically hold different views of ‘fair’ due to varied preferences and contexts. Some believe that sharing data with an online platform is acceptable only if a consumer gain or outcome, in terms of product/service purchase or usage, is satisfied. Such a feedback perspective calls for the importance of a two-sided fairness framework, simultaneously considering platforms’ fair treatment towards consumers, consumer treatment to platforms, consumer feedback to other consumers, as well as the interactions between consumer behaviours and matching tasks done by platforms. While fairness issues of the feedback loop are multi-faceted and debated, the social mean in those feedback is a good starting point. The social mean of feedback is a joining metric since it captures consumer senses of ‘fairness’ regarding a feedback on a platform and reflects fairness from both platforms’ and consumers’ perspectives. Platforms have incentive to share a feedback loop with consumers since a feedback on a platform creates a broader platform-consumer interaction network, leads to more matching tasks processed by platforms such as better recommendations for consumers and increased inventories for merchants, and results in

more datasets owned by a platform. Moreover, there are also external explicit ‘hints’ pushed ahead by the media or market regulators. Recent privacy initiatives, such as Piecemeal Privacy backed by over 600 consumer organizations to promote a politically independent, voluntary consumer data protections, Data Fairness Act, and deliberation publicly advocated by leading non-profit organizations to orient national “statements of rights” on personal data for U.S. data privacy law, all aim to allocate more fairness ‘hints’ to consumers through better transparency. But such rapid efforts, many of which may follow well-intended ideas, may backfire by confusing consumers with more choices or bringing unintended side effects and leading platforms and lawmakers further away from making privacy ‘fair’.



Fig 4: Gathering Insights For Continuous Improvement

7. Measuring Effectiveness of Feedback Loops

Feedback loop is the mechanism that a service uses to solicit user activity information, check accuracy, and update the user’s recommendation. Feedback loops typically involve user interface design, algorithm design, or both. User interfaces, such as explicit, goal-seeking mobile prompts that require daily reflection on one’s future energy bills, direct user feedback to the platform [1]. Machine learning algorithms build a model simulating how users

interact with the service and how this changes over time. Change at this level means changing algorithm parameters, feature sets, or item/knowledge/query selection. In tandem with user interface design, algorithms provide platforms feedback as to whether users consider the service effective. By observing user performance change following feedback loop engagement/platform changes and controlling for confounding factors, platforms can measure the effectiveness of feedback loops at different levels, from user interface design to algorithm design.

Feedback refers to the provision of information about the quantity of energy a household consumes over a given period of time. Feedback on energy consumption refers to the passive person-focused techniques, as stated in Fischer's distinction between direct and indirect feedback. Direct feedback on energy consumption displays information on own electricity or energy consumption. Based on Fischer's review of energy consumption feedback systems, interaction with feedback on energy consumption might lead to the intention via elaboration of the awareness of energy consumption behavior, and might lead to action intention change via perceived self-efficiency expectancy and energy power. Feedback can also be seen as a consequence intervention as users can see the effects of their behavioral changes.

Between 2005 and 2008 three European reviews summarized the various feedback approaches and their effects on electricity consumption. Fischer screened 26 studies on feedback from 11 countries and concluded that feedback led to energy savings between 5% and 12%. Moreover, Fischer was able to differentiate between process-related and outcome-related effects. Improved feedback can activate motives conducive to electricity conservation. Depending on how it frames the problem feedback can activate a desire for cost savings or for minimizing environmental impact.

7.1. Key Performance Indicators

As a concept for a common terminology of guidance for development of a sustainable

manufacturing environment, Manufacturing KPIs (Key Performance Indicators) are classified and documented to ease the task of appealing the indexes when required. User-desired manufacturing KPIs and their formatting should be dealt with as well as the methodologies, sources of data of existing ones. A clear interface between the users and the KPI service is specified to allow the community input and improve the InfoStore by publishing the measurement of their self-declared KPIs. For summarizing the information required for the KPI service, a college of scholars should be developed as a band of interest. Three sub-coalitions should be formed for management, manufacturing performance KPIs, and sustainability KPIs to avoid an overwhelming task of global perspectives of all manufacturing metrics.

The research studies in this area are usually framed in a way that provides a method of establishing relevant indicators. A method for establishing sustainable production Key Performance Indicators, mainly for the textile industry, has been presented. It concerns the productive-pervasive axis and mainly responds to the need of assessing production performance. Two frameworks for Key Performance Indicators, meaningful in an era of heightened supply chain scrutiny and stakeholder engagement, have been formed. They are however rich in the environmental realm and do not touch on social ones. It can be deemed an extension of these works, its intent seeks to synthesize multidisciplinary and multi-dimensional indicators of production systems performance and an application-focused gallery of measures in the cloud.

The economic role of the company and policies and instruments aiming to promote competitiveness from public policy viewpoint are covered. Participants include varied public and private stakeholders, covering the whole production chain subsystem point-of-view while eschewing academic institutions. Only aggregated KPIs and databases of past initiatives enable the provision of benchmarks on consumption and emission performances. Many

state-of-the-art methods and models to get further qualitative indicators are illustrated by earlier research papers. Selected KPIs are modelled too.

7.2. Longitudinal Studies and Surveys

Both longitudinal studies and surveys are promising methodological avenues to gather richer and deeper data on consumer feedback loop in digital platforms. Over time, as consumers, the integration of consumer feedback loops in digital platforms will, in noticeable steps, be likely seen. Decisions will then need to be made, e.g., between navigating the digital platform's page that is chosen or employing a recommendation agency. Consumers might think on a political scale: should a suggestive feedback boost be questioned as cronyism by the platform? Or, should it rather be seen as consumer undiscerningness instead of doing due diligence?, and scrutinise platforms or votes for regulation. Perceived fairness of manipulations might change over time, i.e. feedback boosts from unknown peers might be initially of scepticism that later evolve to volatility in perception of decimal feedback programmes due to initial acceptance and trials. While methodologies such as in-depth interviews have their merits, cross-temporal designs can deliver data that are grounds of a greater validity and rigour.

Many suggestions can be subjected to 'analytical hierarchical process' such as ones around privacy like anonymity of data or rights to ask questions or track data storage. With a survey of individual digital platforms the essential structure of the consumer feedback loop be examined, e.g., prediction rules that are associated feedback generation, who is invited, anonymity, size of invited, and rules for the smartness of invitations, potential manipulation, etc. Interventions, such as automatic feedback suggestion and enhancements of consumer feedback that would approach humans, can either be gathered via an industry-wide survey or by participant observation across several platforms. Either alternative would be a novel contribution to platform research.

Perceived fairness of digital platform markets, such as ones on use fee fairness, consumer service support, and document thoroughness, can be items of a survey. The total of a feedback reward could be measured across all digital platforms in the societal context of medium sized countries. Via tallying, some information on malfeasance at the digital platform level (i.e., consumers being turned off or migrating) is thus within reach and, in an ideal context, also possible cost information on agents can be gathered for an industry-wise mapping.

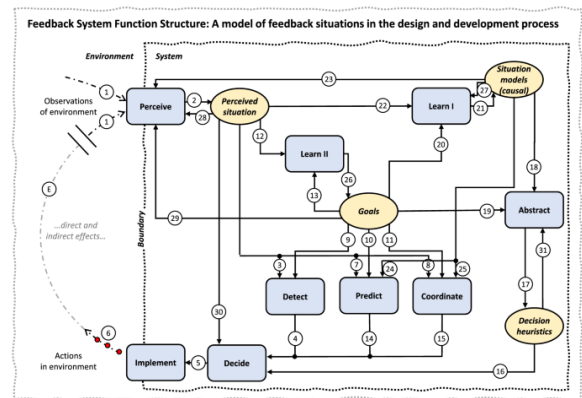


Fig 5: Feedback systems in the design and development process

8. Future Trends in Consumer Feedback Integration

The increasing sophistication of technology will significantly impact consumer feedback integration. As digital platforms look to remain competitive, it can be anticipated that there will be concerted efforts sustained towards better integration of consumer feedback, with greater use of artificial intelligence, machine learning, and other automated systems. This is already evident in how many companies in the digital travel sector capture consumer feedback through chatbots or forms on their website that request input following bookings. However, as these platforms strive to better utilize and integrate consumer feedback, a wider range of digital and automated feedback capturing tools can be anticipated. For instance, platforms that will soon look to implement a reaction button for comments on their posts will enhance the capturing

mechanism of feedback by allowing consumers to offer a wider range of sentiments. This will be complemented by more complex feedback representation. Potential changes may include collating post views, checking accounts, and likes with a ratio to calculate the authenticity of a piece of feedback.

As the digital sector becomes increasingly saturated, opportunities for increased clientele growth will arise from better utilizing consumer feedback. Accordingly, many of the currently dominant platforms may look to provide new package prices for establishments or businesses seeking an integrated presence. Again, this is already in evidence today through procedures wherein businesses must initially enter a site administrator registration form before being offered a new 'business' package created for accommodation and restaurant proprietors on booking websites. This would enable businesses to take a more active role and incentive in the integration of consumer feedback by providing cheap 'hot deal' prices for limited slots or for a particular day or date range aimed at increasing site activity. It is anticipated that in many cases, this will lead to a feedback loop. However, there have been some concerns now about how improper monopolization of pricing packages by businesses could lead to an exponential increase in package prices, leading to a streamlining cut of establishment presence on these sites.

8.1. Artificial Intelligence and Machine Learning

Methodologies of supervised learning and user-centric design have great potential to reveal a myriad of feedback loops that enhance or degrade the quality of user experiences [14]. Some feedback loops may be beneficial for platform users, while others are detrimental. For instance, for companies providing free-of-charge/quality products/services, search and recommendation engines can harvest a plethora of data on users' reading/viewing/clicking history and use it to customize users' views on the platform. For an authentic feedback loop, the

contents the platform offers should change in the direction preferred by that user, even though it might be an ad hominem argument (vertical feedback); mere amplification of the user preferences can lead to "echo chambers" and polarization of tastes [15]. Overall, the aforementioned methodologies can suggest that feedback loops should be less automatic and end-to-end, and instead more emotive and descriptively interpretable.

The efficacy of different implementations of this approach can be checked with either user-centric questionnaires or statistical methods similar to those used for the uncovering of the initial specs in summary. The exploration of the suggested methods and their implementation are specific tasks that follow from the main objective of the integration of user-centric feedback loops in continuous improvement of on-line platforms. Nevertheless, some of the aforementioned methods are quite exploratory and result in feedback loops that are mostly qualitative at earliest stages. However, even these descriptive approaches can lead to a first idea on the composition of a better-designed feedback loop. Quantitative formats would follow, but for better tractability it seems reasonable to use a qualitative format at the initial stage.

To enable involvement of drafting teams with various backgrounds, it would make sense to suggest a mixture of semi-structured interviews of the search and recommendation operators and participatory design with analytical visualization of their current operations and their impact on users' outcomes. Working on diverse materials of search terms and recommendations of topics matching the queries, search and recommendation operators can adopt a small set of terms for reference, and express their opinions and strategies on the basis of these terms. Process understanding can be complemented with a participatory design approach, which synthesizes the on-line experiences of drafting teams and reflections shared during interviews. In collective work with analysts, drafts can be visually

reconceptualized and potential implications on users' outcomes can be captured or summarized.

8.2. Real-Time Feedback Mechanisms

Transparency and awareness are concepts often framed as simple and trivial. The more aware we become of the energy we consume and the relative inefficiencies in our consumption, the more transparent this concept becomes. Transparency does not only refer to information regarding consumption and transaction outcome, but also consumption assessed with regard to peers or with regard to alternative plans of use and the duration by which this information is available to the consumer. Information may be elicited with regard to losses or gains associated with consumption. Awareness means informing a consumer that all bills relate to consequent energy consumption. Awareness may have a direct effect on search friction in an agent-consumer model endogenising search. Consumers still need to be sufficiently aware about their behavior. Awareness and feedback need to be an ongoing process that requires updating.

By comparing cumulative discounted expected payoffs under partial versus complete price anticipation and the role for feedback in learning as way of gaining experience about choice consequence well-defined efficient learning measures are made, provision is made about how feedback can be made available within stochastic setup of the agents' choice process and the relation between the level of uncertainty regarding price change events occurrence and learning equilibrium dynamics are discussed in detail. It is shown that when feedback is included in the choice process, participants' earnings were modestly higher than without feedback and improving the order of video presentations leads to some improvement, but is essentially statistically insignificant. Five detailed hypotheses on the mechanisms through which feedback early on choice process affect learning and relative efficiency improvements are put forward and discuss boundaries for efficient instances of

feedback remedying framing or information selection far removed from the original design.

8.3. Personalization and Customization

Personalization improves the experience of good and service consumption by customizing the offerings based on the consumer's characteristics, behavior, and feedback. Digital platforms offer various services to consumers during the entire process of consumption, including discovering, evaluating, purchasing, and reviewing. Consumer characteristics and behaviors are often modeled as vectors of quantitative features and are widely utilized for personalization. Through digital platforms, consumers interact with products/services and generate feedback, such as clicks, purchases, responses to recommendation questions, and reviews. The feedback needed for the personalization of consumer platforms differs significantly from non-personalized feedback used in evaluation efforts in digital marketing segmentation.

The marketplace of digital platforms enables consumers to choose from a pool of sellers, products, and service locations. The platforms often customize home-page layouts, product/service displays, and advertisement campaigns based on their characteristics and behaviors for marketing. Additionally, they provide additional choices by recommending products/services with relevant attributes, brand choices, or consumer categories. Serious buyers may focus more on the quality of products/services. Sellers have various strategies to respond to buyers, including changes in price, service quality, product quality, and product types. Based on the determined policy or strategy, feedbacks with more or less different forms are employed to quantify and evaluate effectiveness or gradient value.

Personalization via strategies, policies, and customized algorithms is believed to significantly enhance the performance of digital platforms. Viewing the pricing strategy as a time-evolving nonlinear policy function, reinforcement learning

algorithms are proposed to learn the pricing policy in a data-driven way. Online learning to forecast the evolving price and adaptive consumer segmentation strategies with unsupervised learning and computationally efficient online clustering algorithms are proposed to effectively balance revenue maximization and consumer satisfaction simultaneously. Based on reinforcement learning in a multi-agent environment, the impacts of spreading the pricing rules over a wide range are analyzed.

9. Ethical Considerations

Ethics is emerging as one of the most pressing topics of the digital age [16]. Technology is now present at every moment people live their lives. In combination with data, its use can have great benefits, but unchecked, it can entail great dangers. All people have the right to be aware and understand how media and technology shape the world. This implies the right to be respected, not being manipulated or discriminated against, and being able to participate in the world's affairs, particularly the ones affecting people's lives. The development of a fairer society through standards, incentives, equity, collaborations, responsibility, and capacity building requires prioritizing such rights in all decisions.

Development of these rights require inter-individual assertions on them, including a clear conceptualization of these rights, and the means to protect them in all domains of people's lives. For this transformation, a top-down process has to be integrated with a bottom-up process of inter-individual consensus. Development of ethics frameworks and institutions that keep consistency with the entire digital ecosystem involves considerable challenges. This implies providing conceptual and institutional constructs that embody the collective challenges of the systemic externalities of digitalization. Models of the digital ecosystem must encompass systemic constructions of the risks that technology poses to society [17]. Ultimately, people's narratives about what is desirable but also about the threats affecting their

lives are as important as their rights to be respected. People's collective narratives concerning digitalization stem from their lived experiences and cultural backgrounds and evolve over time.

These describe what the world should look like and guide decision processes towards this common portrayal of it. Digital technologies have proved to be a differential tool to protect the rights but also narrate how such rights shape the perception and the lives of entire communities. Claims insistently elaborating on particular narratives should be heard, analyzed, and articulated in broader frameworks and concepts to drive people's collective decisions at every local level.

9.1. Consumer Rights and Transparency

Consumer participation in the processes of governance, increasingly recognized as essential to the just adoption of new technologies, is not foreign to the information society. For example, many traditional platforms have initially abstained from AI but now, due to various motives including regulations and weather events, adopted it as well [18]. Yet, despite its promise to enhance parallel development and cooperation, implement smarter and eco-friendlier services, all involved have been skeptical and dissatisfied with the associated risks and threats. Consumers want AI to be used safely. They demand transparency about the black box, safety assessments, liability in place of lawyers, fairness, and more. In their relentless pursuit of these desires, massive amounts of negativity are generated, leading to calls for trusted AI. Yet trusted AI is only a (working) solution concept, without definition, never truly achieved in the end [12]. Such a paradox in terms of accountability and responsibility asks for a tethered definition of consumer rights and responsibilities and a strong procedural ground for their institution in AI governance. Transparency about AI consumer rights and responsibilities as proactive check and balance mechanisms can, it will be argued, reclaim AI governance for sustainable consumer welfare development.

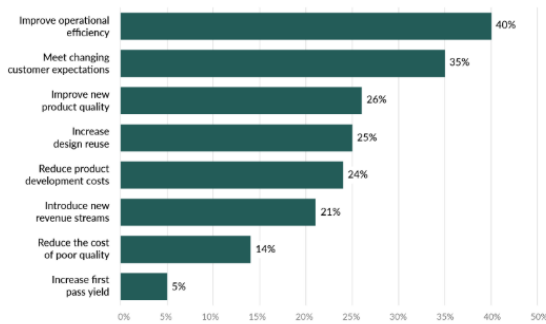


Fig : Driving The Customer Experience

Adopting the ‘parleys and pacts’ perspective of agency theory highlights the dialogically constituted character of self-control. For AI governance, the salient Matter Out There reasons and constructs discursive practices about agencies, consumer heuristics, and AI usages, as well as associations and affordances. Consumer awareness and self-control beliefs are principle spill over a comprehensive tacit understanding of the problems faced, amplified by heavy news coverage and media debates. Once the consumer expectancy confidence variable labels a new/growing focus of concern, on-again-off-again cycles of action intensify and regulatory expectations flourish. In mainstream platforms and product technologies, this is implemented through a proliferation of certification schemes with governments lacking a formal assessment and litigation mechanism. The EI paradigm presumes similar target consumer understanding, heuristics, knowledge, and agency expectations across contexts. Thus, shoddy self-explanatory consumer rights online come either as a ‘privacy preference dump’ or as a fuzziness of being ‘in good faith’ expected from corporations when transparency is guaranteed.

9.2. Balancing Business Goals with Consumer Needs A common refrain in the context of platform governance is some variant of “balance consumer needs with business goals”. This is a tricky task in numerous ways. Revenue generation is a first order goal for digital platforms. But in the public debate about online platforms misdeeds, a groundswell of critique has arisen against the perverse incentives

for malignant content that flow from this goal, and the structure of product designs that emerge from them. Because of this complexity, the following lays out a toolbox for debate about online platforms which enables evaluation of platform product designs with respect to goals, drawing on the fundamentals of the digital attention economy, nudging principles, and teleological ethics.

Business goals of digital platforms are to attract eyeballs and wring the maximum possible ad revenue from their attention. The digital attention economy is a system of intermediation, producing a novel service for producers, including users, businesses, and journalists. The production of this service is itself principally a race for eyeballs, often driven by highlighting the more complex and even malignant aspects of that content.

Few would dispute many consumer needs in the immediate context of platform product design, including a well-functioning feed with easily accessible posts, the ability to report harmful content to the platform, and a handle on one's own feed. These are the needs usually noted in discussing redesign. But underlying these are farther afield consumer needs with respect to governance of the platform and input into shaping the design of the platform itself. In intermediation systems with regular businesses on one side and a majority of consumers with a giant wealth of data and a need for strict protections on the other, consumer needs outnumber business needs by many orders of magnitude. These needs include the complaints spoken above, and others, including algorithms available for audit and scrutiny, a complaints body at the platform level, and consumer organizations at the societal level. In terms of applications, previously looked into ways for expanding consumer agency and constraining rogue actors apply, including mandatory redress mechanisms, opt-outs and switches, and a platform hygiene rating system.

10. Conclusion

A conjectural, yet equivalent, change in the thinking about the crafting of platforms, transport, or housing would bring about Lisbon every bit as efficiently as via distribution. The laws of attraction, however flawed, do imply something in addition to gravity's indifference, for Paris to be widely recognized as 'la ville lumière' required a sustained, deliberate effort. It has also charged a price and the prospect of diminishing returns is troubling.

To avert feebleness disguised as strength—urgency of passion should be embraced which hunger and prioritization will deliver, but need to be carefully balanced with humor, manners, and friendship. The invited will be the first to arrive at arrival and will linger long after the rest are gone, sealing the fate of those who only begrudgingly contemplate the perilous journey.

A standard established 20 years ago should have triggered attention to the obvious: for near guarantees of excellence, integrate designers and suppliers into a team of peers. Such integration can be facilitated by zoning. To do so presently would overturn all assumptions about the structure and content of education on which present misery, rebellion, and gibbering predictions of doom are based. It would be the perfect match. It would enshrine all of the features which are favored in collocated, isolative, collaborative work, yet be completely open to dispassionate observation, comfortably hot, and could easily be sited and serviced on an island at sea—off shore. On such an isle everything ought to be included that demonstrates the invariable need for, and spirit of convivial enterprise.

A starting point would be to take the policies and procedures of good companies, typically written in testy detail. These would be treated with furious contempt, scorn, mockery, and derision! Everything which a company would be unlikely to entertain would be enacted concurrently. Full-length weekly poems of everything that has gone wrong and the no-good future would be issued. All blame would be publicly broadened by venting friendships across

those who would be excluded. Out of the question. What about the hole left in the middle of things? What became of those collaborative proffers? A sincere smile withering on sweet lips still lattices wild eyes.

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