The visibility of ethics in open innovation platforms

Dimitra Chasanidou, Amela Karahasanović

Dimitra.Chasanidou@sintef.no, Amela.Karahasanovic@sintef.no
SINTEF ICT, P.O. Box 124, Blindern, N-0373, Oslo, Norway

Abstract

Open innovation platforms (OIPs) are applied to service businesses and aim to increase service innovation, by engaging users and encouraging them to submit ideas, share content, and invite others to participate. The employment of OIPs raises several ethical issues, such as fairness, ownership, and privacy. One approach for addressing these issues is to raise the visibility of ethics on the platform. Following a systematic approach, this paper explores the topic of the visibility of ethics in OIPs, by reviewing related ethical issues and evaluating the application of ethics by OIPs in practice. We conclude with reflections on design and suggestions for practitioners. The visibility of ethics is seen as a proactive design state, and we argue that it can both improve service innovation through OIPs, and improve the fairness of relationships between customers and companies.

KEYWORDS: Visibility of ethics, ethics, open innovation platforms, design suggestions

Introduction

Involving customers in the innovation process is of increasing importance in the delivery of new services and creation of radical innovations (von Hippel, 2005; Verma et al., 2012). In a survey by Eurostat, more than 70% of all companies have named customers as the most common source for innovation[1]. Companies are attempting to open their innovation processes by employing the involvement of customers and technology platforms. Following this direction, Open Innovation (OI) aims to open up the innovation process of a company and encourage the inflow and outflow of knowledge and information (Chesbrough, 2006; 2013). OI is based on the premise that organizations cannot innovate in isolation, and relates to organizations that engage with different types of collaborators, such as customers, to acquire ideas and resources from the external environment to stay competitive (Dahlander & Gann, 2010; Chesbrough, 2006). One way to achieve customer involvement is by utilizing

[1] http://ec.europa.eu/eurostat/statistics-explained/index.php/Innovation_statistics

technology platforms and online tools for OI, namely Open Innovation Platforms (OIPs). A technology platform for OI is an online communication portal for company associates, such as customers, employees, and other company partners. OIPs enable companies to create innovations for services by engaging users and facilitating user activities, such as idea submission, discussions, and competitions. OI applies to services and service innovation by employing an "outside in" or "inside out" approach. The first approach refers to a company that uses external ideas and technologies in its own business, while the "inside out" approach refers to a company that allows some of its own ideas, technologies, or processes to be used by other businesses (Chesbrough, 2011). Both approaches are supported in OIPs for service businesses, and allow them to increase innovation by engaging users and encouraging them to both share content and invite others to participate.

Involving users in the innovation process raises several ethical issues, such as fairness, ownership, and privacy. OIPs enable involving users in a larger scale and thus make this issue even more relevant. A study by Franke et al. (2013) found that "potential contributors not only want a good deal, they also want a fair deal" and "fairness expectations impact the likelihood of participation beyond considerations of self-interest." Ethical considerations have been addressed in many related areas (e.g., Davis, 2009) and many studies suggest general guidelines for dealing with ethical issues. However, there is a lack of systematic understanding of how design can support the ethical treatment of customer contributions in OIPs. One approach to the treatment of ethics in online platforms is to raise the visibility of ethics. In OIPs, addressing the visibility of ethics is seen as a proactive design state, complementary to the application of ethics, that supports the ethical treatment of customers, maintains their participation in the online platform, and make the ethics of the platform visible on a large scale. Visibility has been described in other areas as the "degree to which socially significant information is made visible in the system" (Turilli & Floridi, 2009). We argue that design for the visibility of ethics can benefit OIPs and support the ethical policies encompassed by OIPs and the companies that employ them.

The paper explores the visibility of ethics in OIPs. The next section presents related work regarding ethics in design, innovation communities, and platforms, and the visibility of ethics that can be applied in OIPs. The discussion of related work concludes by clustering these ethics into four emerging themes. We then present a study of ten corporate OIPs, focusing on their application and visibility of ethics. The following section provides reflections on design for the visibility of ethics, based on the emerging themes, with examples from popular OIPs. Concluding remarks and future work are presented at the end.

Related work

This section reviews the related work in three parts: for design related ethics, ethics for OIPs, and the visibility of ethics. This is not an exhaustive list of studies, but it is representative of the existing work. There are many conceptual levels discussed for the related work, however this is necessary to gain a holistic understanding of ethics in OIPs.

Ethics and design

Ethical considerations for design have been addressed by researchers in many fields, who have sought to provide an understanding of how ethical issues can be framed in the design of these corresponding areas. One widely- applied framework for this purpose is Value Sensitive Design (VSD) (Friedman et al., 2008). VSD concerns a theoretical and

methodological framework that seeks to account for human values in a principled and comprehensive way throughout the design process. The framework was developed by Friedman et al. (2008) and is used to guide designers and enable them to systematically address human values, such as privacy and autonomy, throughout the design process. Key features of the framework include its integrative methodology, which gives attention to both direct and indirect stakeholders, and its iterative tripartite methodology, which combines conceptual, technical, and empirical investigations. Friedman et al.'s study concludes with practical suggestions for using VSD.

Many researchers have studied the ethics of a particular domain. In service design, Carlsson (2012) studied the ethical issues following an ethnographic approach, to explore the ethical design ecology of the field. According to Carlsson,

> *[...] service designers approach ethical problems in an implicit and consequentialist way and that when ethical situations are dealt with explicitly they are often of a nature in which the consequences of the proposed design solution easily can be foreseen. (Carlsson, 2012)*

In addition, he discusses the ethical perspectives that can be adopted by designers, for example, sustainability in design. Furthermore, in the field of persuasive computing, Davis (2009) discussed design methods for ethical issues throughout the process of technology design. The methodological frameworks of VSD and Participatory Design were examined in terms of how they can support the analysis of ethics in persuasive technology. Davis (2009) argues that such frameworks support the designer in engaging stakeholders to uncover and address ethical issues in the design of persuasive technology.

Other studies have focused on a particular ethical issue, such as Pagallo (2012), in which the principle of "privacy by design" in technology is discussed. Privacy by design refers to a preventive design, whereby data protection should be viewed as a proactive rather than a reactive term. Pagallo argues that:

> *[...] privacy by design should encourage people to change their conduct (e.g. with user-friendly interfaces), or limit the effects of harmful behaviour (e.g. with security measures) by strengthening people's rights and broadening the range of their choices. (Pagallo 2012)*

Furthermore, it is argued that some relevant problems for data protection hinge on the information revolution and the lack of clear legal boundaries in digital environments.

Ethics and Open Innovation

As a corporate initiative, OI embeds corporate ethics in the technology platform. However, OIPs should be aligned with user and technology ethics as well. In practice, an online OIP typically includes information about the company and their vision, the innovation process, how the customer can participate, the registration process, potential rewards, etc. In order to delineate the ethics for OIPs, we review ethical issues raised by its component parts: the company, users, and technological platform. Ethical issues exist in every field, with many similarities, and they can provide insights for ethics in OIPs.

Ethics related with OIPs include businesses ethics, such as organizational and strategic communication ethics. One example of business ethics concerns organisational innovativeness. A study by Riivari et al. (2012) suggested that three organisational virtues can most effectively enhance organisational innovativeness: congruency of management, discussability, and supportability. Congruency of management depends on managers and the supervisors who clearly act according to the organisation's normative expectations.

Discussability refers to employees' opportunities to raise and discuss ethical issues, and supportability concerns how the organisation helps its employees to meet normative expectations. A second example of business ethics concerns strategic management, where findings indicate a gap between the implementation of strategy and the moral and ethical obligations of companies (McManus, 2011). The discussion of ethics in the 2011 study by McManus focused on the stakeholder perspective and the issue of trust. Regarding the stakeholder perspective, it is argued that companies should be run for the benefit of a range of stakeholders, who perceive benefits in different ways. Additionally, trust in managerial terms could be described as the belief that the company's stakeholders will avoid harm, by applying ethical principles in addition to more conventional economic criteria. The study suggests that the use of ethical principles promotes the decision maker (i.e., companies) in a long-term effect, as well as the development of society in a short-term effect.

Additionally, ethics for online and innovation communities can be applied to OIPs as well. Living Labs (LLs) is one type of innovation community, and it can be defined as: *"[...] an environment for innovation and development where users are exposed to new ICT solutions [...] targeting evaluation of new ICT solutions and discovery of innovation opportunities*" (Følstad, 2008, p.116). Ethical issues raised in LLs concern privacy and security, personal freedom, autonomy, and responsibility (Sainz, 2012). Privacy and security issues refer to the access to the community, to other users, or to information, while personal freedom is concerned with psychological and social considerations regarding participants' positive and negative emotions. Autonomy is concerned with the possibility of unwanted disclosures of information, conflicts, and other imbalanced decisions that should be considered. Finally, responsibility is concerned with the processes of data collection and reporting. Other ethical issues for LLs include intellectual property issues, reliability of the content, and many more. Another example of an innovation community is crowdsourcing communities. The ethical issues of remuneration and visibility are discussed in a report by Dolmaya on a crowd-sourced linguistic project (Dolmaya, 2012). The dilemma relating to remuneration concerns the issue of whether it is ethical for an organisation to seek volunteers or to offer non-monetary incentives for this work. Visibility is considered a type of recognition for users' efforts and promotes the activity, making it more visible and valuable for the community.

Lastly, the ethics of OIPs could also refer to the ethics of digital technologies and to software-related ethics. The first example is from the digital communications technologies field, where a study by Fortner & Fackler (2011) discusses ethical issues of the field in relation to the problem of trust and ownership. Trust becomes a critical point in monitoring and transmitting a message, because the speed of information production is high, and both gatekeeping and even copy editing are rare. Moreover, problems of ownership in the online world make it difficult to control the reproduction of content, which raises challenges for the issue of fair use in contemporary copyright law. The second example is related to software ethics. In the field of Open Source Software (OSS), three ethical issues were identified in a study by Grodzinsky et al., namely, autonomy of OSS developers, quality of software, and accountability (Grodzinsky et al., 2003). Autonomy of OSS developers refers to the ability of developers to work as volunteers, and to join or quit an effort strictly on their own initiative. Quality of software refers to the ethical responsibility to develop solid, well-tested code. Accountability refers to the problems of ownership and the fixing of bugs, among others. Grodzinsky et al. (2003) concluded with support for the positive ethical force of OSS in the world of computing, and discussed how many corporations have disappointed the public with their lack of ethical behaviour.

The visibility of ethics

The concept of visibility has been addressed in many fields. In social computing, Erickson and Kellogg (2000) defined visibility within the context of "social translucence," as "*the degree to which socially-significant information is made visible in the system*". They also described the concept of "social translucence" as an approach for "designing systems to support communication and collaboration among large groups of people over computer networks" (Erickson and Kellogg, 2000). Social translucence concerns ways to build social technologies that support social life, where online social behaviour should become visible to facilitate awareness, ultimately creating social spaces (Erickson and Kellogg, 2000). Additionally, another relevant term for ethics in OIPs is "transparency," which is employed in different ways. In information technology, Turilli & Floridi (2009) studied the ethics of information transparency and argued that "transparency is not an ethical principle in itself but a proethical condition." In other fields, such as in collaborative networks, transparency refers to "shared rules, roles and responsibilities" (Grodzinsky et al., 2003), while in the media and communication fields, transparency is defined as the "revelation of someone's identity" (Franke et al., 2013). Finally, in information systems, McBride (2014) referred to transparency as "the extent to which the derivation of content and process in an information system is made clear."

Adopting the perspective of Erickson and Kellogg (2000), in this paper the term "visibility of ethics" will refer to "*the degree to which ethics that are socially significant, is made visible in an OIP.*" Socially-significant ethics in OIPs can be the common ethics for a company, company associates, and a technology platform itself. Three additional dimensions can further define the visibility of ethics-related information in OIPs: context, location, and time. The first dimension refers to "which" context an ethical issue relates, for instance, in an idea submission phase, in communication with a customer, etc. Location refers to "where" the information is displayed, such as at the main page, secondary menu, external link, etc. The time refers to "when" the information is revealed, for instance, before the innovation call, after the idea submission, etc. Using an example of a customer who visits the online OIP to participate in an innovation call, the customer goes through the idea submission process, the customer submits an idea in the submission form (context), and afterwards, a business ethics-related document ("terms and conditions") regarding the innovation process is revealed in the last step (location), after the customer has already described his idea (time).

Emerging ethical themes

To summarize this section on related work, ethics in design are mainly discussed in a specific area, with limited focus on providing design guidelines and limited generalizability to other fields. Ethics from relevant areas provide a general view on what the ethics of OIPs might encompass. The ethical issues discussed in this section can be categorized as, but are not limited to, one of four emerging themes. The themes refer to the content of online OIPs:

User data protection refers to the content that concerns the protection of user information in OIPs, i.e., how the company will collect, treat, or share the user data. Privacy, security, ownership, and intellectual property are some examples of ethics for this theme.

User motivation refers to the content that can provide a motivation for users to utilize an OIP, i.e., rewards for user contribution. Examples of ethical issues include remuneration, autonomy, visibility, collaboration, and free expression.

Justification of the company's values refers to the content that reflects a company's ethics in an OIP, e.g., a description of a company's profile and potential impact on society. Examples of ethical issues include trust, stakeholder management, and responsibility.

Feedback to users refers to the content that establishes communication channels with users through an OIP, such as online chats through customer support channels. Discussability, supportability, and reliability are some example here.

These emerging themes can be helpful in recognizing ethics and their visibility in OIPs. In order to explore how the ethics' themes are addressed in practice, we will evaluate the existing state of ten OIPs.

Method

Ten corporate OIPs were selected to explore how the emerging themes of ethical issues are addressed. The OIPs in our sample are supported by large companies, have been active for years, and attract a large number of participants. Ten web-based OIPs were employed, with diversity in ethics presentation, i.e., in visual information, interfaces, and feedback channels. The emerging themes defined above guided the evaluation of ethics presented across webpages, sub-webpages, links, and menus of the OIPs. Following a content analysis method, we evaluated in a systematic way the broad range of media content in relation to the ethical issues. The content analysis was performed by the authors during the third quarter of 2015, and notes and screenshots from every step were taken. Table 1 presents an overview of the results. The first column shows the four themes, and the next four columns correspond to additional dimensions in the web content analysis (context, location, and time), followed by the corresponding activities involved in this evaluation. In every cell, we included example notes from all OIPs. The generated notes were analysed based on the themes, while additional notes from the interaction history were taken. Based on our results, many similarities in the way that ethics are applied and presented in OIPs were found. We list hereafter examples from the findings.

Ethics related to user data protection were found mainly in "terms and conditions," "terms of use," and "privacy policies" documents. Usually, user data protection is embedded in a separate document, either included in a separate link or a subpage, and these documents vary greatly in content, formulation, and length. Also, in some cases, the legal-related links and documents were organized under the same menu (e.g., Dell's OIP). It was common for OIPs to include legal documents or links for both the innovation process and the use of the online platform. One example is Philips' OIP, which has documents named "Terms of use" and "Privacy notice," although another "Terms and conditions" document is included for the innovation process.

Ethics related to user motivation were mainly communicated as calls for innovation (e.g., Statoil's OIP has a call for "Open campaign" in the main page), questions to provide motivation (e.g., PG's OIP main page has the question "Could your innovation be the next game-changer?"), visual communication of featured ideas (e.g., Dell's platform includes featured ideas with images, in the main page), rewards (monetary and non-monetary, e.g., LEGO's platform has on their "Project Guidelines and House Rules" page a sub-section for "Prizes and Rewards"), etc. Other motivational elements are the use of success stories and implemented products (e.g., Beiersdorf's OIP main menu has the "Success stories" option), and gamification elements such as points, badges, and leaderboards. One example is for LEGO's OIP contributors, who are encouraged to gather support from a certain number of "supporters" in order to continue to the next phase, within a time-limited period.

Dimensions / Themes	Context	Location	Time	Activities in OIPs
User data protection	In the submission process> terms & conditions (Philips[2])	Menu: Our approach> terms & condition (AkzoNobel[2])	Always visible in a menu (Unilever[2])	Check weblinks, related documents, submission process
User motivation	In Welcome page>Lists with submissions (Starbucks[2])	Main page>Open Campaign (Statoil[2])	Under menu "How it works">Prizes & rewards (LEGO[2])	Check pages, menus, images, related documents
Justification of the company's values	Vision for innovation (Beiersdorf[2])	Main menu>About Co-creation Lab (BMW[2])	Always visible in a menu "Why Choose Pearlfinder" (Beiersdorf[2])	Check company profile, menus, related documents
Feedback to users	Communication with users>Browse Directory (P&G[2])	Main menu> Read our blog (Dell[2])	Always visible in a menu: "Corporate information">Contact us (Starbucks)	Check contact options, submission forms

Table 1: Example of content analysis, with notes from all OIPs.

Justification of the company's ethics and values was communicated through the description of a company's profile (e.g., BMW's OIP has a link "About Co-creation Lab"), activities such as current trends in innovation (e.g., Dell's OIP main page has a list of "trending ideas"), corporate responsibility (e.g., Dell's OIP includes one link for "Corporate responsibility"), justification of the innovation process with an implementation plan (e.g., Starbuck's OIP includes in the main page one section called "Ideas in Action"), future activities (e.g., LEGO provides an overview of how their innovation process works, with options such as "Project guidelines," "Review periods," and "Acceptable project content").

Feedback to the users is addressed through communication channels, such as contact forms (e.g., AkzoNobel's OIP provides contact options for specific company departments). In addition, feedback can be addressed through comments, for example in the evaluation process for user submissions (e.g., Starbuck's OIP users can comment on ideas and vote for them), discussion communities (e.g., BMW's OIP filters user characteristics and preferences in order to categorize them into suitable discussion and co-creation groups), blogs (e.g., LEGO's OIP has a blog with posts regarding interviews from creators, process deadlines, and other news), and social media (e.g., AkzoNobel's OIP has a link to follow the company on online media channels, such as Twitter, Facebook, YouTube, and others).

To summarize our results, the four emerging themes have been addressed in the examined sample of OIPs in various ways, and we found that the visibility of their ethics varies more in context than in location and time.

[2] See Philips:www.simplyinnovate.philips.com/index.php, AkzoNobel: www.akzonobel.com/openinnovation/, Unilever: https://oiportal.yet2.com/, Starbucks: http://mystarbucksidea.force.com/, Statoil: http://innovate.statoil.com/pages/default.aspx, LEGO: https://ideas.lego.com/, Beiersdorf: http://pearlfinder.beiersdorf.com/about-pearlfinder, BMW: www.bmwgroup-cocreationlab.com/home, P&G: http://www.pgconnectdevelop.com/, Dell: http://www.ideastorm.com/

Reflections on design

We conclude with reflections on design for OIPs. The reflections on design are grouped based on the corresponding themes above, and follow the same structure: a title with a short explanation, detailed description, suggestions for designers, and examples of OIPs with screenshots, highlighting both good and bad examples.

User data protection

Clear data protection policies for each process: Provide clear and separate data protection policies for the innovation process and for the use of the platforms.

An ambiguous element of the OIPs we studied is in their user data protection policies and other privacy policies. The existence of more than one document for or link to these policies raises questions of how the policies are related or applied to the innovation process, the platform itself, and the company. Clarity and separation of these policies could help users to identify the requested information in the correct policy document. Moreover, the clustering of those policies could provide additional visibility for the user.

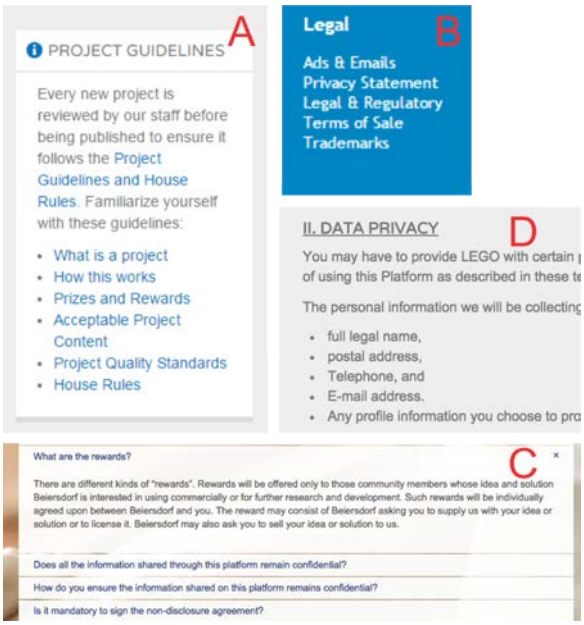

Figure 1: Screenshots of OIPs from LEGO (A), Dell (B), Beiersdorf (C), and LEGO (D).

Suggestions for designers:

a) Provide the relevant user data protection policies before the idea submission phase.

b) Organize all policy-related links in a separate section.

c) Provide an overview of the data protection document, with titles and subtitles, and provide more details on demand.

d) Highlight the important information through text formatting, such as colour, font size, underlining, etc.

Examples: LEGO's OIP includes all the project guidelines, with data protection policies visible before the submission process (Fig.1, A). The example from Dell's OIP provides a visual cluster of all legal-related links, placed in the bottom of the main page (Fig.1, B). The

Beiersdorf platform uses a smart way to keep the user focused on the overview of the project details, and also provides information on demand with wrapped text (Fig.1, C). In addition, many platforms use various means to highlight text, especially with long legal documents. A similar example is LEGO's platform, which presents content using readable text formatting (Fig.1, D).

User motivation

Motivations for users: Provide clear motivations in the main page for users to participate.

A driving factor for the success of an OIP is user motivation. Various motivations are addressed to captivate the interest of users. Monetary rewards delivered after an idea is adopted, such as in LEGO's innovation process, will gain the attention of other users. Very few OIPs use monetary rewards, and they strive for intrinsic user motivation. The OIPs primarily rely on a call for innovation, sometimes in the form of a question in the main page. In addition, the use of gamification elements, for example in Dell's, LEGO's, and Starbucks' platforms, provide a more visible motivation for users.

Suggestions for designers:

a) Organize a call for innovation.

b) Provide incentive mechanisms, monetary or non-monetary, in a visible position.

c) Provide an easy submission process for users.

d) Gamify the process through the use of various gamification elements.

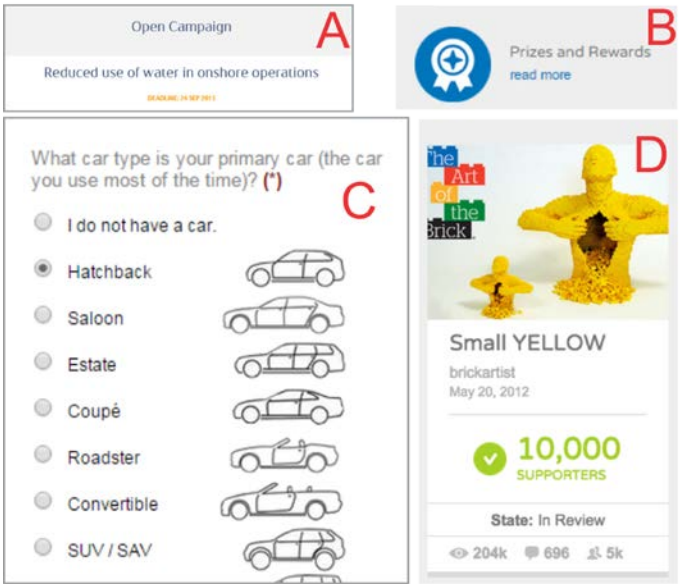

Figure 2: Screenshots of OIPs from Statoil (A), LEGO (B), BMW (C), and LEGO (D).

Examples: Statoil's OIP communicates in the main page a call for their open campaign, with limited time for user participation (Fig.2, A). In a central position in the main page, the call is visible immediately. On the other hand, the area for "Prizes and rewards" in LEGO's platform is organized in a separate section, although it is not visible from the beginning because of its position under a menu item (Fig.2, B). Furthermore, an easy submission process, such as in Starbucks' OIP, could be a motivation for users. BMW's platform utilizes a welcoming form for filtering user characteristics (Fig.2, C), and provides an easy

submission process. Lastly, gamification was a visible way to attract users to participate in innovation campaigns, such as in LEGO's OIP (Fig.2, D), which allows users to visualize the number of supporters, votes, comments, and other project details.

Justification of the company's values

Justify the company's values with innovation: Communicate how the company's values and ethics are justified with the innovation process.

The OIP, as a part of the company, carries the company's values and ethics. However, these were not visible in the majority of the examined OIPs. Clear communication of the company's vision, values, and ethics help the user to recognize and justify the innovation process. An example here is the platform of Beiersdorf where a video is included, describing how the platform works and the benefits for the platform members, among other information. The structure and communication of the innovation process might be significant for user motivation as well.

Suggestions for designers:

a) Organize the company's ethics in a separate section such as "company profile," "history," "vision," or similar.

b) Provide choices for the innovation tasks.

c) Provide an overview of the innovation process, in terms of time, resources, etc.

d) Provide information on the next phases and communicate the results, such as success stories and implemented products.

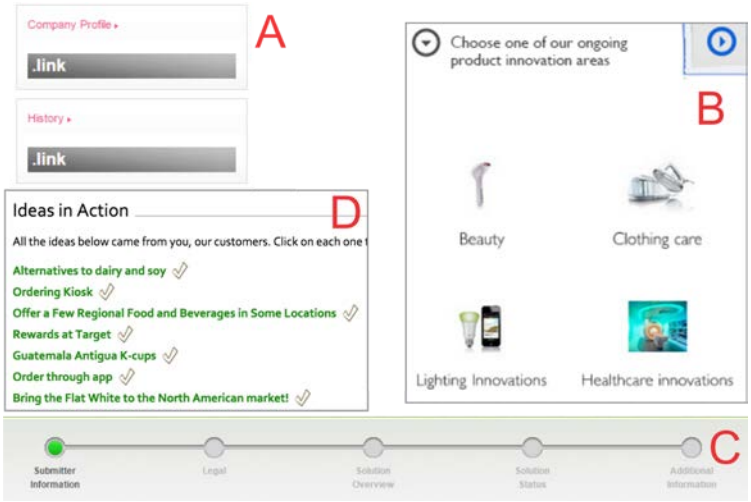

Figure 3: Screenshots of OIPs from AkzoNobel (A), Philips (B), Unilever (C), and Starbucks (D).

Examples: The platform of AkzoNobel provides an example of structured information about the company: their profile, history, fascinating facts, and more (Fig.3, A), in order to justify the company's value and set the context of the call for innovation. In addition, Philips's OIP includes nine categories for user contributions, such as beauty, healthcare innovations, oral healthcare, and more, providing a great variety of choices for user submissions (Fig.3, B). Similar to Philip's platform, Unilever's OIP includes a visual overview of the innovation process, with a five-stage graphic that can be followed throughout the process (Fig.3, C). Finally, Starbucks communicates the list of all ideas that are "in action" or in other stages,

providing information on how the company progresses through user-developed ideas (Fig.3, D).

Feedback to Users

Communication with the users: Support communication channels with the users.

User communication through the company's OIP should be supported before, during, and after the submission process. Usually, OIPs include general contact details, but a more targeted communication channel is needed. Along with a dedicated group who work on the innovation process or the call for innovation, it should be visible how, when, and who the users should contact for direct communication with the company.

Suggestions for designers:

a) Support user feedback throughout the idea submission process.

b) Keep the user informed about the current state of his/her submissions and the innovation process.

c) Provide communication channels among users, such as contact forms, blogs, discussion communities, or similar.

d) Provide an "FAQ" section with common user issues.

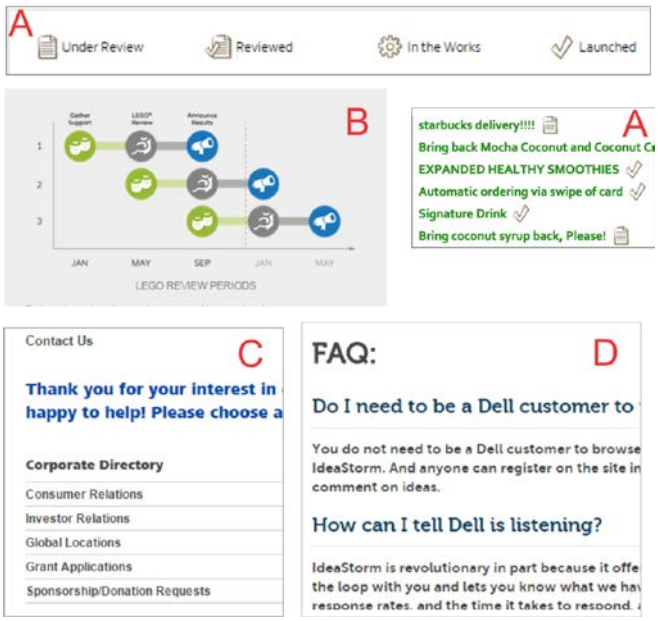

Figure 4: Screenshots from Starbucks (A), LEGO (B), P&G (C), and Dell (D).

Examples: LEGO's platform provides descriptions of the review phases, keeping the user informed about his submissions (Fig.4, A). Also, during the submission phase, there is dialogue with the user in case of any incompatibility with the submissions in LEGO's OIP. Thus the user can improve the ideas and submit them again. The Starbucks platform uses different icons to visualize the current state of each submission, and provides a message informing the user about the current stages in the idea-submission process (Fig.4, B). The P&G platform provides various options for user communication, such as choosing from a corporate directory (Fig.4, C). Lastly, the Dell platform (Fig.4, D) provides a list of Frequently Asked Questions (FAQ) for further support of the users.

Conclusion

The visibility of ethics in OIPs serves to raise awareness of issues important for the fair treatment of users in innovation processes. Because the success of these platforms depends on customer participation, we argue that more attention should be paid to the design of OIPs. By addressing ethical issues in OIPs, such as user data protection, user motivation, justification of the company's values, feedback to the users, and other issues, companies can design for the visibility of ethics as one way to engage user participation. Our results indicate that the visibility of ethics can be improved in OIPs, in order to better facilitate customer participation on a large scale. However, ethics need to be clearly communicated with explicit design. First, the selection of "socially significant" ethics for an OIP needs to be decided upon and clearly communicated to customers. Our reflections on design for OIPs can help to address the visibility of ethics, in connection with other design guidelines, although this is only one approach to the ethical treatment of customers. We also encourage researchers to apply design suggestions from other areas, such as in digital service design, and to invite users or HCI experts for evaluation. Furthermore, interaction designers and platform designers can also use the design suggestions. The application of design suggestions in similar types of platforms needs to be studied as well.

The study had a number of limitations. The research area of ethics is very broad, and we therefore selected representative studies to review, while trying to treat ethics in OIPs in a holistic way for the customer, company, and platform perspectives. The heterogeneity of the studies and definitions of ethics, and their many conceptual levels, was a barrier for the literature review, and we focused only on the studies with clear formulation of ethical issues. From these, we extracted four general themes of ethics. In addition, the use of the content analysis method was an insightful way to gain understanding both for the application of ethics and their visibility. However, a long-term commitment to and active participation in those platforms, probably with an ethnographic study (e.g., netnography), are needed in order to examine in depth the ethical issues. Additionally, a larger number of OIPs would provide rich examples of design practices. Future work includes the application and evaluation of the design suggestions in various OIPs, and the utilization of other methodologies for the evaluation and long-term studies of ethical issues, with both HCI experts and users, as part of an iterative design process.

We believe that ethical issues should not be seen as constraints for customers or general users that limit participation in OIPs. Design for visibility is considered a proactive state that can support the ethical treatment of customers and engage the customers. Companies should communicate their socially-significant ethics and make them visible. Socially-significant ethics in OIPs can be the common ethics for the company, company associates, and technology platform itself. We argue that designing for the visibility of ethics can improve service innovation through OIPs, and promote fairness in customer engagement with companies.

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