

BOOK CHAPTER | Semantic Changes

User Lifecycle and Semantic Changes in Online Communities

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Abstract

What it takes an administrator to manage a user account from creation to elimination and the lifecycle management in an online community is of great importance to changes that occur. Most of the times, a user will move from one online community to another just like an intern becomes a full-time employee, a full-time employee becomes a contractor, a student advances from one level to another, or many other related scenarios. This chapter considers user lifecycle and semantic changes in online communities. Most times, elaborate or simple set of rules are created that will apply to specific user accounts because of the changes. With the rules having schedule associated with them and this automatically performs the actions, thereby having no need for remembering to perform the action. This will create a stable, secure, and compliant environment for all user accounts.

Keywords: User Lifecycle, Online Community, Semantic Changes

Introduction

Online communities, for example, online discussion forums or product review websites, are continually developing. Norms of interaction change over time, from domain-specific jargon (M. Garley, J. Hockenmaier. Beefmoves, 2012) to conventions for content attribution (F. Kooti, H. Yang, M. Cha, K. P. Gummadi, W. A. Mason 2012). New words and new usage of words are popping up in the course of web-based communications. Advances in technology and communication platforms have enabled the open exchange of knowledge within online communities. In these communities individuals voluntarily share information for many reasons, including to help others; due to a sense of ownership and belonging; and a belief in generalized reciprocity. Yla Tausczik, Xiaoyun Huang (2020). Most of the times, a user will move from one online community to another just like an intern becomes a full-time employee, a full-time employee becomes a contractor, a student advances from one level to another, or many other related scenarios. At the point when new individuals join, they can adjust to existing community standards, yet can likewise push them in new bearings. Long-time members might adjust to these new standards or they might be trailblazers themselves, starting new precedents.

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Other users may not respond to changes, adhering to their past styles. This aim of this study is to look into user lifecycle and semantic changes in online communities. Most times, elaborate or simple set of rules are created that will apply to specific user accounts because of the changes. With the rules having schedule associated with them and this automatically performs the actions, thereby having no need for remembering to perform the action. This will create a stable, secure, and compliant environment for all user accounts.

User Lifecycle

User lifecycle is a term to depict the interaction stream of how a user account is created, managed, and erased in storage service based on specific occasions or time factors. A user account goes through various stages in the life cycle. The stages are non-existent, deactivated, activated, and deleted.

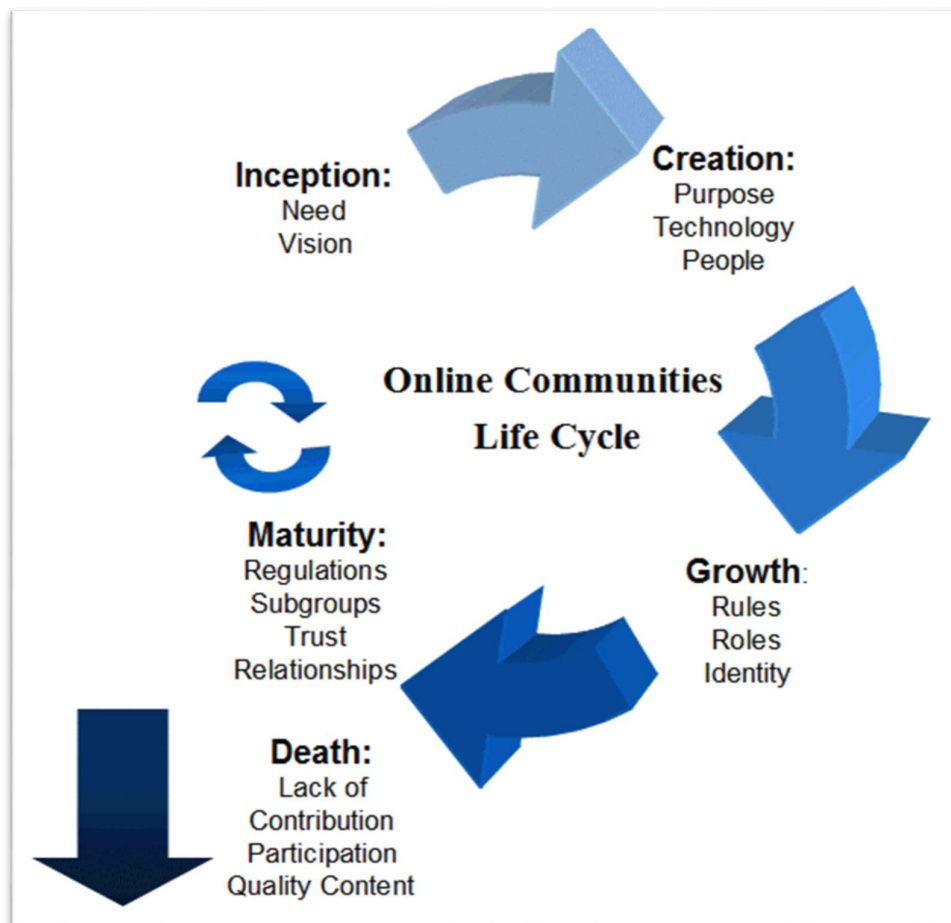


Fig 1: Online Community Life Cycle

Source: https://www.researchgate.net/figure/Online-communities-life-cycle_fig1_220566648

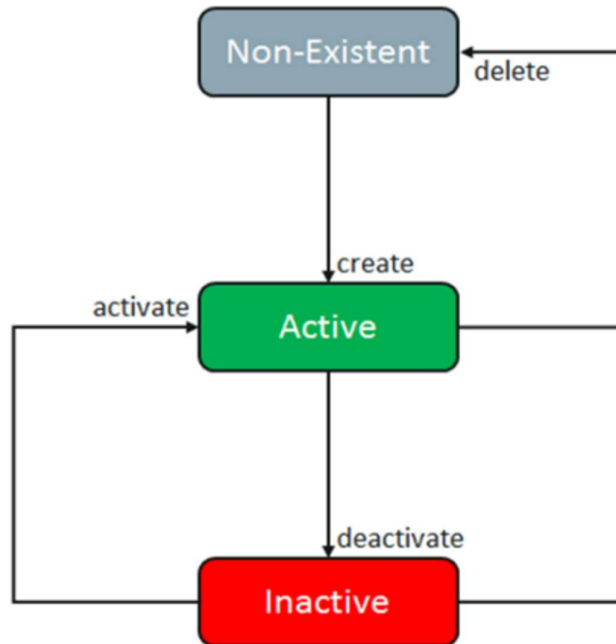


Figure 1: User Lifecycle. Source: Oracle

User account life cycle management

User account life cycle management is simple upon first glance, but the details and requirements for the creation, management, and de-provisioning of user accounts can be complex hence, administrators must perform more actions to complete mundane tasks or develop scripts to manage users as they move through their life cycle.

Danescu-Niculescu-Mizil et al (2013) proposed a framework for tracking semantic change and for understanding how individual users react to evolving community norms at different stages of their careers and applied this framework to two large online review communities and this revealed that users follow a determined two-stage lifecycle: A linguistically innovative learning phase in which users align with the language of the community, followed by a conservative phase in which users stop responding to changes in community norms.

New users change their language after joining a community, and demonstrated that a machine learning classifier could be trained to predict how long a user had been in a community, given linguistic features like self-introductions, references to other members, or mentions of the name of the forum. (D. Nguyen and C. P. Rosé. 2011). Machine learning techniques can also be applied to detect semantic change categories such as sense broadening, sense narrowing, pejoration, amelioration, even metaphorical change and metonymic change. For instance, Tang et al. (2016) makes use of curve fitting and Support Vector Machine to categorize semantic changes.

Conclusion

The creation of users most times is streamlined, efficient, and easy process but the semantic changes in the online community should be of importance in the life cycle. This study has looked into that and the interaction of online users. Further studies can be conducted using machine learning techniques to detect semantic changes.

References

1. M. Garley, J. Hockenmaier and Beefmoves (2012): Dissemination, Diversity, and Dynamics of English Borrowings in a German Hip Hop Forum. *ACL*, 2012.
2. F. Kooti, H. Yang, M. Cha, K. P. Gummadi and W. A. Mason (2012). The Emergence of Conventions in Online Social Networks. *ICWSM*, 2012.
3. Yla Tausczik and Xiaoyun Huang (2020): Knowledge generation and sharing in online communities: current trends and future directions, *Current Opinion in Psychology*. Vol 36,2020,Pages 60-64, ISSN 2352-250X,<https://doi.org/10.1016/j.copsyc.2020.04.009>.
4. Cristian Danescu-Niculescu-Mizil, Robert West, Dan Jurafsky, Jure Leskovec and Christopher Potts (2013): No Country for Old Members: User Lifecycle and Linguistic Change in Online Communities *WWW 2013*, May 13–17, 2013, Rio de Janeiro, Brazil. ACM 978-1-4503-2035-1/13/05.
5. D. Nguyen and C. P. Rosé. (2011): Language use as a reflection of socialization in online communities. *Workshop on Language in Social Media at ACL*, 2011.
6. Tang, X., Qu, W., and Chen, X. (2016). Semantic change computation: A successive approach. *World Wide Web - Internet & Web Information Systems*, 19(3): 375-415.
7. Derek Melber - Effective ways to manage user lifecycle in active directory. <https://download.manageengine.com/products/ad-manager/manage-user-life-cycle-in-active-directory.pdf> retrieved January 11, 2022
8. Oracle. <https://docs.oracle.com/en/cloud/paas/identity-cloud/uuids/understand-user-lifecycle.html> Retrieved January 11, 2022