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Intrinsic and extrinsic motivators to contribute to open textbooks

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Open textbook, as a form of open source software movement, is an open-licensed textbook that allows anyone to add, edit or alter the content. Users are free to use, copy, and distribute such textbooks without the author's permission. A critical review of the literature (such as Jurgen, Wolfram & Philipp 2005; Krishnamurthy 2006) relating to the motivations of contributors to the open source software movement, suggests such motivations may be intrinsic, such as learning, enjoyment, altruism, and self determination; or extrinsic, such as achieving personal needs, selling products, peer recognition and financial rewards. Drawing on this review, the researcher presents a theoretical model of motivations, be they intrinsic or extrinsic, that may account for open textbook contributions. For example, while there may not be a financial reward associated with contributing to open textbooks, researchers may be motivated to contribute to gain the recognition from their peers, or a wiki-related group assignment in a course might work as an extrinsic motivator for students to contribute their assignments to a wiki textbook. This presentation explores the issues that impact on the motivation of people to contribute to open content and how such motivations apply to open textbooks. A conceptual framework, which identifies the intrinsic and extrinsic rewards associated with contribution to the open textbooks, is proposed, and the implications for the future of the open textbook movement are discussed.



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Intrinsic and Extrinsic Motivators to contribute to Open Textbooks

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Intrinsic and Extrinsic Motivators to contribute to Open Textbooks

“Psychologist and non-psychologist alike have always wanted to explain why people do the things that they do. Different people seem to be driven by different motives: while one devotes the majority of his/her life to achieving the largest possible business empire, another chooses to focus on creating beautiful works of art. While one strives to achieve the greatest possible success in a chosen field, another just wants a quiet and relatively anonymous life. Such considerations give rise to many questions about the nature of motivation. Are we all driven by the same basic motives so that the business success and artistic creativity equally satisfy the same underlying need? Or are they qualitatively different types of motivation? How are the different motives related to one another? Are some motives basic and others in some way secondary to, or derived from them? How does the satisfaction of one motive affect other motivation? Are there specifically human types of motivation, or are human motives elaborations of motives that we share with other species? To what extent are we aware of the motives that govern our own behaviour?”

(Wagner 1999, p.2)

Intrinsic and Extrinsic Motivators to contribute to Open Textbooks



- 1) Do you know what **open** projects are?
- 2) **Why** people do what they do?
- 3) Have you spent part of your time in **voluntary work**? Why ?
- 4) **Researchers, Teachers, and Students** and open textbooks

Intrinsic and Extrinsic Motivators to contribute to Open Textbooks

Open software is a software which is open to use, copy and distribute for free; and its source code is also open to access, edit, and redistribute. Examples: *GNU & Linux*

Open content is a published document that allows people to add, edit, or distribute the content. Examples: *Wikipedia & OER Commons*

OPEN Textbook is a book that is used for educational purposes (learning and teaching) by students and teachers; the text is open to access, add, edit, and restructure, copy, and distribute. Examples: *Wikibooks & Connexions*

Frydenberg, J & Matkin, GW 2007, Open textbooks: Why? What? How? When, William and Flora Hewlett Foundation, October 2007.

Hylén, J 2006, Open educational resources: opportunities and challenges.

Stallman, R 1999, 'The GNU operating system and the free software movement', in *Open sources: Voices from the open source revolution*, 1st edn, eds. M Stone, C DiBona & S Ockman, O'Reilly, Beijing ; Sebastopol, CA, pp. 53-70.

Schweik, CM, Evans, TP & Grove, JM 2005, 'Open source and open content: A framework for global collaboration in social-ecological research', *Journal of Ecology and Society*, vol. 10, no. 1.

What is the motivation?

Motivation is the determinant of thoughts and actions that affects the human to choose whether to initiate, continue or stop his/her behaviour (Weiner 1992).

Examples of motivation theories:

Need Hierarchy Theory of Abraham Maslow

Need Achievement Theory of David McClelland

Self-Determination Theory of Edward Deci & Richard Ryan

Deci, EL & Ryan, RM 1985, *Intrinsic motivation and self-determination in human behavior*, Plenum, New York.

Maslow, AH 1970, *Motivation and personality*, 2nd edn, Harper & Row, New York.

McClelland, DC 1967, *The achieving society*, Free Press, New York.

Weiner, B 1992, *Human motivation: Metaphors, theories, and research*, Sage, Newbury Park, Calif.

Motivation



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graph TD; Motivation[Motivation] --- Intrinsic[Intrinsic]; Motivation --- Extrinsic[Extrinsic];
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Intrinsic

When people engage in an activity to achieve satisfaction (self-rewarded)

Enjoyment
Learning

Extrinsic

When people engage in an activity due to gain external reward.

Wealth
Reputation

What make volunteers do what they do?

Clary et al (1998) identified six main reasons that motivate people to volunteer in ***physical projects***:

Personal reasons → Forget bad feelings, Avoid loneliness,

Values → Help others in needs, Own belief

Career → A step to work, Developing business contacts

Social → People I know contribute, People ask me to contribute

Understanding → Learning, Exploring myself

Enhancement → Self-esteem, Feel needed (important)

Clary, EG, Snyder, M, Ridge, RD, Copeland, J, Stukas, AA, Haugen, J & Miene, P 1998, 'Personality processes and individual differences: Understanding and assessing the motivations of volunteers: A functional approach', *Journal of Personality and Social Psychology*, vol. 74, no. 6, pp. 1516-1530.

What make volunteers do what they do?

Hars and Ou (2001) identified six main reasons that motivate people to volunteer in ***open software projects***:

- Self-determination
- Altruism (help others)
- Community identify
- Selling products
- Human capital (learning)
- Self-marketing
- Peer recognition
- Personal need

Hars, A & Ou, S 2001, 'Working for free? Motivations of participating in open source projects', paper presented at the Thirty-Forth Hawaii International Conference on System Sciences, Hawaii.

What make volunteers do what they do?

Clary et al (1998) identified six main reasons that motivate people to volunteer in ***Open content projects like Wikipedia:***

Protective (personal needs)

Values

Career

Social

Understanding

Enhancement

Fun

Ideology

Nov, O 2007, 'What motivates Wikipedians, or how to increase user-generated content contribution', *Communications of the ACM*, vol. 50, no. 11, pp. 60-64.

Motivations for contributing to Open Textbook:

Students:

Free textbook with built-in multimedia

Collaborative learning increase the social interactions and fun

Success in their courses

Tutors & professors:

Customized textbooks according to the course and student needs

Enabling and facilitating group assignment and tracing their progress

A step to authoring whether for recognition or experience

Researchers & Professors

Publish researches and update the current knowledge

Publishing books for self-esteem and peer recognition.



More references

Andersen, E 2006, 'Using Wikis in corporate context', in Wiki: A new wave in web collaboration, eds. BRK Jain & KR Prabhaker, The ICFAI University Press, Hyderabad, India, pp. 39-59.

Augar, N, Raitman, R & Zhou, W 2004, 'Teaching and learning online with wikis', paper presented at the 21st Australasian Society for Computers in Learning in Tertiary Education (ASCILITE) Conference, Perth, December 5-8.

Bold, M 2006, 'Use of Wikis in graduate course work', Journal of Interactive Learning Research, vol. 17, no. 1, p. 5.

Bruns, A & Humphreys, S 2007, Wikis in teaching and assessment: The M/Cyclopedia Project, Queensland University of Technology.

Désilets, A & Paquet, S 2005, Wiki as a tool for web-based collaborative story telling in primary school: A case study, National Research Council of Canada, Montréal, Québec, Canada.

Parker, KR & Chao, JT 2007, 'Wiki as a teaching tool', Interdisciplinary Journal of Knowledge and Learning Objects, vol. 3, pp. 57-72.