

# Social Applications in Product Development: Focus on Autodesk

## *CIMdata Commentary*

### *Key takeaways:*

- *Social business collaboration functionality is becoming an important factor in product development.*
- *Many of Autodesk's offerings support synchronous and asynchronous collaboration, especially those in their 360 cloud-native portfolio.*
- *Collaboration is at the core of Autodesk's 360 offerings, and those offerings provide good examples of how a social focus can enhance product development.*

## **Social Functionality Can Enhance Product Development**

A recent CIMdata commentary entitled “Emerging Social Applications in Product Development” (20 May 2014) focused on the applicability of social business collaboration capabilities in product development, and described how recent moves by Autodesk and others provide insights into how best to leverage these capabilities.

Looking closely at Autodesk, we see a market-leading vendor that is defining the next generation of design experience and blazing trails in the expansion of design and product development software, both CAD and PDM, to benefit from the innovations made possible by cloud, mobile, and a social technology mindset. A demonstration by Autodesk and NetSuite, a leading cloud ERP solution provider, offered interesting examples of how social functionality can broaden the conversation concerning product development and support more dynamic work arrangements to get the job done faster.

The demonstration showed how social interaction can be a thread connecting multiple enterprise strategies, systems, and processes. Autodesk announced the partnership at NetSuite SuiteWorld in May 2013, and their joint demo shown at the event illustrated how this integration might work across the development lifecycle. In the scenario, using tools in the NetSuite platform, a manufacturer identifies an all-too-common problem: a product that had once led its market niche has slumped in quality, and social feedback has not been kind. The company decides to crowdsource a replacement for this product, a barbecue grill, through a design competition enabled by NetSuite's offering. Participants use Fusion 360 to come up with multiple design concepts, each with its own community of supporters. The social tools support collaborative rating schemes, which help engage the interested parties and, hopefully, build some energy in the customer community at large that will create interest in the new product. Once the product is in development, the community extends to suppliers and lead customers, who contribute to the evolving product. All collaborators are linked using PLM 360. Authorized participants can view the Bill of Material (BOM) in both NetSuite and PLM 360, with information pulled from NetSuite into PLM 360, to support sourcing and product costing. The demo also showed how some of Autodesk's cloud S&A offerings could address customer complaints (in this case, regarding “hot spots” on a grill).

While CIMdata's Commentary focused on a few specific Autodesk offerings, the company supports many different collaboration use cases, particularly in their 360 portfolio. With Autodesk, if it's 360, it's cloud. Some of the 360-branded offerings were organically

developed; others were acquired, and now Autodesk offers a wide range of 360 products and services to support their various constituencies:

- General design and collaboration—Autodesk 360, Mockup 360, AutoCAD 360, Buzzsaw
- Building and construction—BIM 360 Field, BIM 360 Glue, Energy Analyst for Revit, Green Building Studio, Structural Analysis for Revit
- Product design and manufacturing—PLM 360, Configurator 360, Fusion 360, Optimizer for Inventor, CAM 360, Process Analysis 360
- Simulation—Sim 360
- Rendering—Autodesk 360
- Reality capture—ReCap 360
- Civil planning and design—InfraWorks 360

Autodesk 360, still officially released for public technical preview, is used as a focus for social collaboration throughout the extended enterprise, which is a natural choice to support these temporary, project-based collaboration efforts. As discussed in the previous Commentary, social functionality seems to work best when it has a process and object focus. For many years, data and process management solutions have provided subscription and notification to let people self-select their entities of interest, usually managed objects. Some solutions emphasize the project level, while others are working on detailed design, development, and production tasks. This naturally creates a nested set of communities of interest at different levels of the project, product, and development lifecycle. Social business collaboration functionality can help give varied stakeholders a voice and a role while keeping them up-to-date on all information they themselves deem relevant.

Mockup 360 brings a long-time PLM capability to the cloud and it supports real-time collaboration by multiple parties on a single 3D model. Anyone from across the extended enterprise can be invited to a review session, and because it is on the cloud, it is easy to participate from any device and from any place. Inherent support for multi-CAD makes it easy to leverage 3D content from many different sources to support real-time collaboration enhanced with chat, and annotations, accelerating the overall design process.

Fusion 360 is really the first social CAD solution native on the cloud. The user interface is a social portal to design content, not the usual array of buttons, toolbars, and widgets. Users can post and share all types of information, not just designs, supported by social functions like wikis and blogs. Autodesk talks a lot about workflow, with a meaning unique from other PLM solution providers. Autodesk's concept of improving workflow is about smoothing process breaks in the digital realization of ideas. Fusion 360 was designed in part to eliminate the digital process break between concept development tools and 3D CAD. Users can readily move from sketching to 3D detailing of the same design. Putting this in a social context has the potential to supercharge the ideation process.

Sim 360 provides “elastic computing,” allowing users to submit analysis runs on the cloud without bogging down their computers (and work life). It incorporates social elements that enable sharing and collaboration on analyses, as well as design and optimization of experiments.

BIM 360 and PLM 360 had starring roles in Autodesk's most recent earnings call. In the last quarter, Autodesk reported that BIM 360 had over twenty transactions valued at over \$100K

in revenue, with two over \$1M each, making it one of their fastest growing products ever. They also stated that PLM 360 had its largest sale ever—over \$700K. These two offerings are bringing socially enhanced data and process management capabilities to Autodesk's AEC and PLM customers. In the case of PLM 360, many of these customers are new to Autodesk—helping expand their market presence and technological footprint.

## **Conclusion**

Social business collaboration is a popular topic driven in part by the pervasiveness of social applications outside the workplace. Many solution providers in the PLM economy are applying social elements in their offerings. Autodesk has done more than most and is aggressively embedding social elements across their growing product portfolio.

The Autodesk 360 offerings illustrate how different approaches can be used to support different use cases and constituencies. Extending these capabilities to mobile platforms is essential in today's IT world, where people want to live and work on their ever-present devices. Autodesk's body of work in mobile is impressive, and merits future communication.

At present, financial analysts tracking the firm speak of these offerings as not being material. However, if the recent large BIM 360 and PLM 360 deals are any indication, adoption of these new solutions is increasing, and may have a major impact in the not-too-distant future. Finances aside, these new offerings from Autodesk are functionally material—they are providing useful examples of how the social, crowdsourced, mass customized, virtually organized business world might work more effectively and profitably.

## **About CIMdata**

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