ELEARNINGNEWS ARTICLE

Year 9 - number 333 Wednesday 07 May 2025

The Impact of AI on Instructional Design of eLearning Content

In 2025, artificial intelligence is profoundly changing the production of digital training content and the role of the instructional designer. Read the article and discover how.

In the landscape of digital training, artificial intelligence has moved beyond the experimentation phase to fully enter the daily practice of companies and providers. The recent **Fosway 9-Grid? 2025 report on Learning Systems and Digital Learning** clearly shows how AI is reshaping production logic, simplifying workflows, and redefining roles and skills.

eLearning, standardizable and repeatable by nature, is the ideal ground for applying solutions based on **generative AI and synthetic media**. However, automation doesn't just concern production: it also extends to instructional design, where the designer now faces new challenges, becoming a director of training experiences created in synergy with intelligent tools. In this rapidly evolving scenario, it becomes essential to question **which skills remain human, which are delegated to machines, and how to ensure quality and pedagogical value** in training solutions.

How AI is Redesigning Digital Training

In the last two years, artificial intelligence has gone from an emerging topic to the fulcrum of innovation **in learning systems**. The *Fosway 9-Grid? 2025* report confirms that interest is now extremely high: almost every training platform today integrates or plans to integrate generative AI tools, workflow automations, and virtual assistants. However, as Fosway notes, two-thirds of business leaders state that their current systems **still do not meet expectations related to AI use**?.

This misalignment between possibilities and actual adoption highlights a transition phase: many companies are exploring AI with curiosity, but the effective activation of advanced features is slowed by issues related to security, ethics, and governance. To reduce risks and concretely evaluate AI's potential in a controlled context, many organizations choose to start with pilot projects or **proof-of-concept (PoC)**. These increase internal awareness and help define realistic goals, facilitating the transition from an exploratory phase to a strategic integration of AI in corporate training.

Content Production and Automation

One of the most transformed areas is undoubtedly **digital content production**. eLearning, with its modular and repeatable nature, lends itself perfectly to being optimized through **generative AI tools**: texts, videos, voice narrations, quizzes, and translations can now be produced or localized in minutes, drastically reducing development time and costs?.

The integration of solutions based on synthetic media, such as realistic avatars and artificial voices, is now widespread among providers and companies. This allows for **scalable production**, ideal for those managing large volumes or needing to localize content in multiple languages. Access to technology has also made **content creation more democratic**: even small teams can now create professional materials, breaking down barriers to the adoption of training innovation.

The Role of the Instructional Designer in the AI Era

The spread of AI in content production is also substantially modifying the role of the **instructional designer**. No longer just someone who writes texts and designs paths, they are increasingly called upon to **select, configure, review, and integrate** outputs generated by automatic tools. Their function becomes that of a **critical mediator**, guarantor of pedagogical quality and coherence with respect to training objectives.

Furthermore, the adoption of AI imposes a **reorganization of production processes** and a redefinition of workloads: manual activities are reduced, but quality control, source verification, user experience design, and adaptation to the company context increase. The designer must master **new transversal skills**, including everything related to AI, understanding the logic of prompt engineering, and the ability to collaborate with advanced tools without being dominated by them.

The AI Assistant: An Ally for Users and Administrators

Another relevant transformation highlighted by the Fosway report is the increasingly widespread presence of **AI assistants** within digital learning systems. In the form of copilots, buddies, coaches, or virtual guides, these tools are becoming an integral part of the training experience, improving its accessibility and effectiveness.

Their value lies not only in natural language interaction, which facilitates navigation and content fruition, but also in the ability to **personalize the experience** for each individual user, proposing targeted resources based on role, objectives, and learning history. For L&D teams and administrators, the AI assistant represents a strategic tool for user segmentation, behavioral data collection, and optimization of the training offer.

Why Many Companies Struggle to Adopt AI

Despite enormous market attention and the increasingly widespread integration of AI in digital learning systems, **adoption by companies proceeds slowly**. The main reasons? Concerns related to data security, governance, regulatory compliance, and algorithm ethics.

According to the Fosway report, two-thirds of L&D managers believe that **their current systems do not meet AI-related expectations**?. In addition, many AI tools already integrated into training systems **remain deactivated**, pending internal verifications or approvals.

To overcome this stalemate, gradual approaches become fundamental, capable of measuring the impact on processes and user experience before large-scale implementation.

From "Just-in-Case" to "Just-in-Time": The Paradigm Shift

For years, corporate training has been dominated by a preventive logic: creating content and paths "in case they're needed," filling platforms with little-used materials. This is the so-called **"just-in-case learning"** approach. But today, artificial intelligence offers the opportunity to move to a completely different model: **"just-in-time learning"**, that is, targeted, personalized training accessible exactly when needed.

Thanks to data analysis, user segmentation, and the use of virtual assistants, AI allows **identifying real training needs and proposing immediate, contextualized, and relevant solutions**?. This approach, in addition to improving learning effectiveness, allows for resource optimization and increased engagement, especially among those with little time and practical goals to achieve.

New AI-Guided Experiences

Another frontier where AI is making a difference is that of **personalizing the training experience**, particularly through **digital coaching** tools. Conversational virtual assistants, based on language models trained to offer feedback, suggestions, and support, are becoming increasingly widespread tools to provide personalized and scalable accompaniment at all company levels?.

These "digital coaches" do not completely replace human relationships, but integrate them, making continuous and accessible support possible even for those who, in the past, would not have had access to a traditional coach. In parallel, AI is also enhancing **immersive and simulated experiences**, allowing the exercise of skills in realistic environments, with immediate and adaptive feedback.

Towards a New Human-Machine Balance

The message is clear: the instructional design of the future will no longer be a matter of manually creating content, but of **orchestrating experiences**. Artificial intelligence offers powerful tools, but a strategic vision is needed to govern them. The instructional designer doesn't disappear, they evolve: they become a **learning director**, able to balance creativity, data, automation, and human interaction.

One can therefore speak of the emergence of an **increasingly deep and productive human-machine collaboration**, in which artificial intelligence amplifies design capabilities, improving accessibility, relevance, and impact of training solutions.