DP3 Newsletter
digital print preservation portal
IMAGE PERMANENCE INSTITUTE
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Graphics Atlas

This website by the Image Permanence Institute is a great companion to the DP3 Project website. In Graphics Atlas all of the processes that have led to today's modern forms of printed images and information can be explored. The site is constantly being updated with new processes from the common to the obscure, so that everyone caring for a collection or just interested in the history of printing can always find something new and surprising.

Start exploring: www.graphicsatlas.org

New Storage Recommendations on the DP3 Project Website

Digital Print Storage Recommendations within the Preservation section of the DP3 Project website have been updated to include the results of our recently completed pollution mitigation studies on inkjet prints. Be sure to familiarize yourself with the new recommendations.

View Recommendations

Terminology

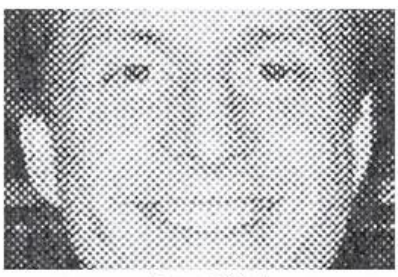
Analog - A continuously variable signal that fluctuates in direct proportion to a changing physical phenomenon (e.g. sound)

Digital - A series of discreet numerical values that increase and decrease in direct proportion to a changing physical phenomenon

Analog Prints Aren't Analog Anymore



Analog Photocopy



Laser Print

These days, we tend to think of printed collection objects as falling into either the analog or the digital, the old or the new. To most collection caretakers the analog objects feel familiar and predictable, while digital hardcopy seems to have an aura of mystery and suspicion, especially surrounding its ability to survive over time in the same ways as the older, more "reliable" materials. While we are all aware that a variety of new, innovative technologies for printing have become popular over the last few decades including inkjet and laser printing, not everyone is aware that what we have been referring to as the analog processes have been incrementally digitized over the same time period. It is now rare to have a totally analog-printed object. Analog and digital printing systems have slowly merged to improve the characteristics of each. Digital printing has borrowed from analog technologies as analog has reciprocally borrowed from digital. The modern laser printer is a digital version of the old photocopier. The rosette screen patterns from traditional lithographic offset printing are giving way to the randomized dot patterns of the digital offset plate. Color photographs, once printed through negatives, are now exposed by laser or light emitting diode. Below we will discover how each of these three common analog systems have become "digitalized".

Photocopying

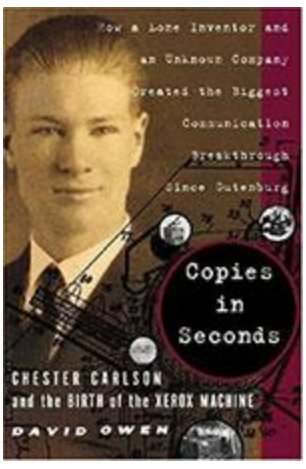
The Old

From the 1950's to the 1980's, all photocopiers created a copy of a document by reflecting light off the original onto a special pre-charged, photo-conducting drum. The object to be duplicated was placed face down on a glass platen where a light (the familiar green glow) was passed across its surface. The white areas of the document reflected high levels of light which neutralized the charge on the drum. The black text reflected little light, so the charge in those areas was retained. Next an oppositely-charged toner was applied to the drum, which would stick to the remaining charged areas recreating the original text/ image. The toner would then be transferred from the drum to paper and fused to create the final copy.

Because the toner was just black, and not various levels of grey, it could not adequately reproduce...

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Recommended Reading: Copies in Seconds



Copies in Seconds: How a Lone Inventor and an Unknown Company Created the Biggest Communication Breakthrough Since Gutenberg - Chester Carlson and the Birth of the Xerox Machine

By David Owen

This book tells the compelling story of the invention and commercialization of the Xerox photocopier. It is as much an endearing human story of the inventor himself and his impoverished upbringing through the years long struggle to get his revolutionary device taken seriously by someone, anyone with the power to bring it to market, as it is a timeless tale of a small no-name startup, with technical and manufacturing obstacles of its own, evolving and emerging into an international mega-corporation. While being engrossed in the story, the reader will inadvertently, by the end of the book, be an expert in every step of the photocopying and laser printing process.